ICF-CD833

SERVICE MANUAL

US Model
Canadian Model
AEP Model

Model Name Using Similar Mechanism	CFD-550
Optical Device Name	KSM-212BAN
Optical Pick-Up Name	KSS-212B

SPECIFICATIONS

CD player section

System:, Compact disc digital audio system
Laser diode properies: Material: GaAlAs
Wavelength: 780 nm
Emission duration: Continuous
Laser output: Less than 44.6 μW
(This output is the value measured at a distance of about 200 mm from the objective lens surface on the optical pick-up block with 7 mm aperture.)
Frequency response: 20 – 20,000 Hz $^{+1}_{-1.5}$ dB
Wow and flutter: Below measurable limit

Radio section

Frequency range: US, Canadian model
FM: 87.5 – 108.0 MHz
AM: 530 – 1,710 kHz
EXCEPT US, Canadian model
FM: 87.5 – 108.0 MHz
AM: 531 – 1,602 kHz
Intermediate frequency: FM: 10.7 MHz
AM: 450 kHz
Scan step: US, Canadian model
FM: 0.1 MHz (fixed)
AM: 10 kHz (fixed)
EXCEPT US, Canadian model
FM: 0.05* MHz (fixed)
AM: 9 kHz (fixed)
* The frequency display is raised or lowered by steps of 0.1 MHz. (Example: Frequency 88.05 MHz is displayed as "88.0 MHz".)

General

Time display: US, Canadian model: 12-hour system
EXCEPT US, Canadian model: 24-hour system
Speaker: Full range: 9 × 5 cm ($3^5/_8$ × 2 inches) 4 Ω
Power outputs: 1.2 W + 1.2 W (at 10% harmonic distortion)
Power requirements: US, Canadian model: 120 V AC, 60 Hz
EXCEPT US, Canadian model: 220 – 230 V AC, 50 Hz
Dimensions: Approx. 176 × 177.6 × 193.5 mm (w/h/d)
(Approx. 7 × 7 × $7^5/_8$ inches)
incl. projecting parts and controls
Mass: Approx. 1.8 kg (3 lb 15 oz)
Supplied Accessory: FM antenna coupler (1. Models for Netherlands, Belgium, Switzerland, Austria and Scandinavia only)

Design and specifications are subject to change without notice.

CD CLOCK RADIO

SONY®

CLASS 1 LASER PRODUCT
LUOKAN 1 LASERLAITE
KLASS 1 LASERAPPARAT

This Compact Disc player is classified as a CLASS 1 LASER product.
The CLASS 1 LASER PRODUCT label is located on the rear exterior.

CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

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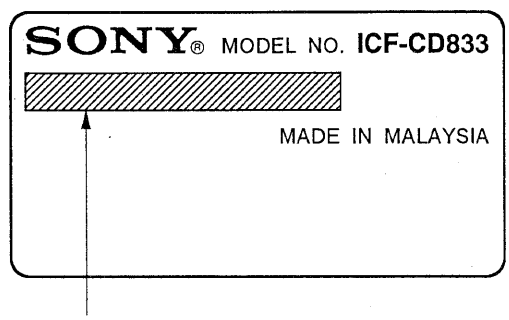
MODEL IDENTIFICATION



US, Canadian model: AC: 120 V ~60 Hz 15 W
EXCEPT US, Canadian model:
AC: 220 – 230 V ~50 Hz 15 W

SECTION 1
SERVICING NOTES

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety check before releasing the set to the customer:
Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microampers). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2 V AC range are suitable. (See Fig. A)

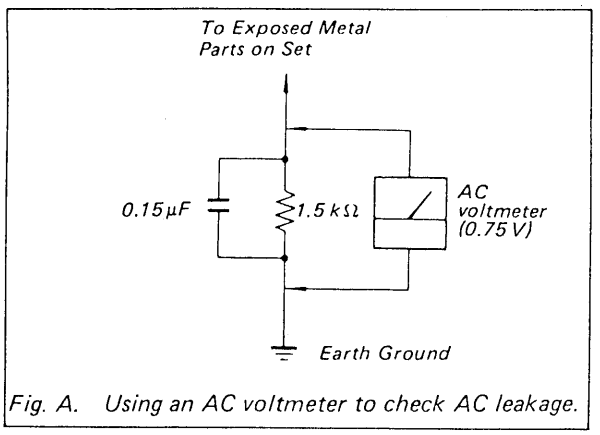


Fig. A. Using an AC voltmeter to check AC leakage.

NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic breakdown because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.
During repair, pay attention to electrostatic breakdown and also use the procedure in the printed matter which is included in the repair parts.
The flexible board is easily damaged and should be handled with care.

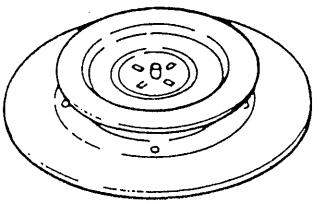
NOTES ON LASER DIODE EMISSION CHECK

The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe from more than 30 cm away from the objective lens.

CHUCK PLATE JIG ON REPAIRING

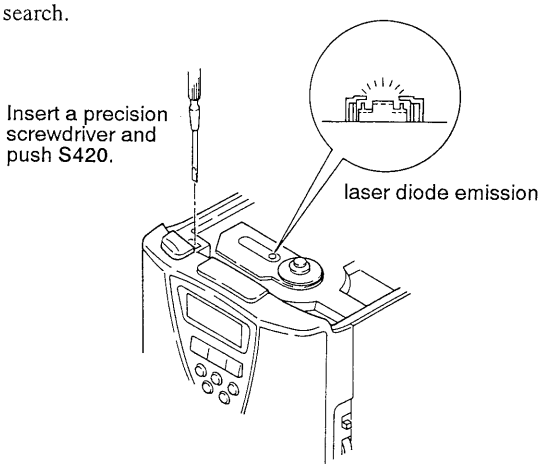
On repairing CD section, playing a disc without the CD lid, use Chuck Plate Jig.

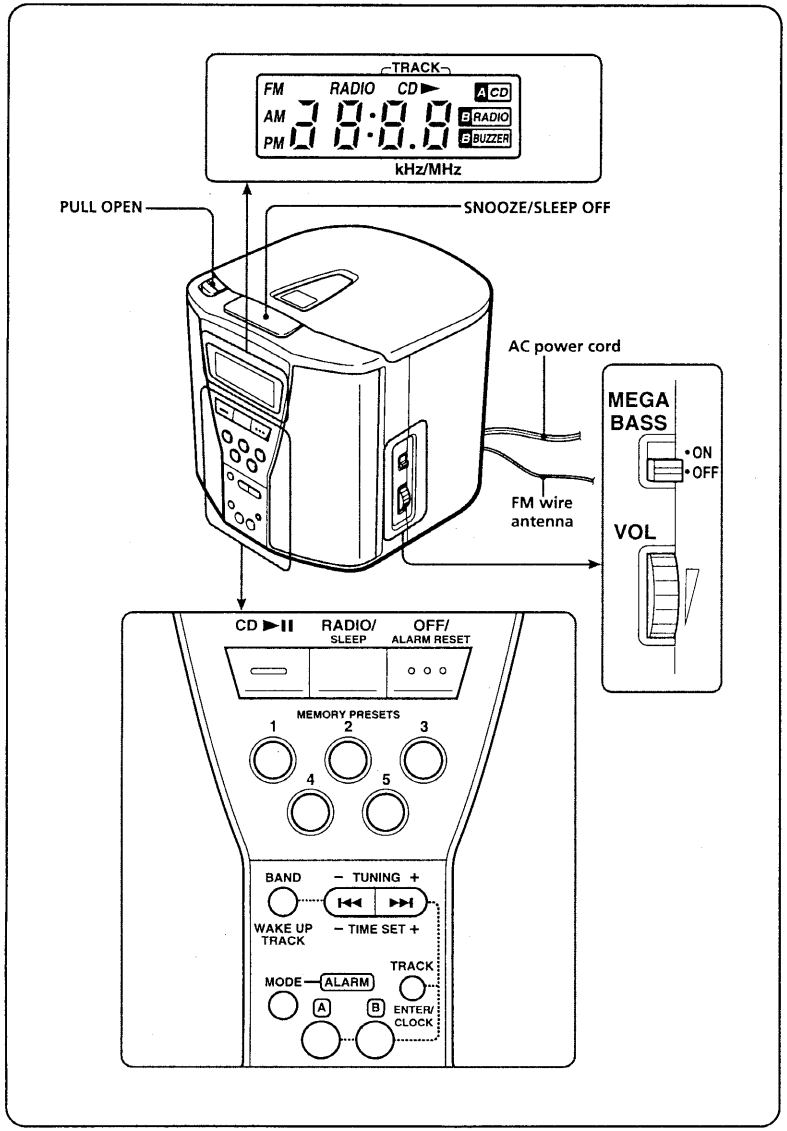
- Code number of Chuck Plate Jig: X-4918-255-1



LASER DIODE AND FOCUS SEARCH OPERATION CHECK

1. Pull knob (open).
2. Open the lid for CD.
3. Turn on S420 as following figure.
4. Confirm the laser diode emission while observing the objecting lens. When there is no emission, Auto Power Control circuit or Optical Pick-up is broken.
   Objective lens moves up and down once for the focus search.





Setting the Clock

Set the time when the CD or radio is turned off.

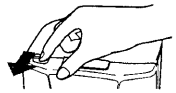
1. Plug in the unit.
   The display will flash "AM 12:00".
2. While holding down **TRACK/ENTER/CLOCK**, press either **TUNING/TIME SET +** or **–** till the correct time appears in the display.
   When you release **TRACK/ENTER/CLOCK**, the clock begins to operate and ":" flashes.

- To set the current time rapidly, keep pressing the + or – button while holding down **TRACK/ENTER/CLOCK**.
- To set the current time from zero second, at step 2, release **TRACK/ENTER/CLOCK** with the time signal.

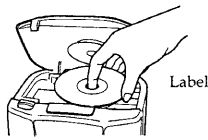
Playing a Disc

An 8 cm (3-inch) CD can be played without an adaptor.

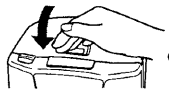
1. Slide **PULL OPEN** out to open the CD compartment lid and place a disc.



Slide.

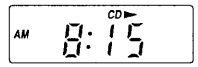


Label surface up.



Close the lid.

2. Press CD ►II and the display lights "01". And the current number (01 to 99) appears in the display window. After 10 seconds, the indication becomes current time, but the "CD ►" indication remains.



3. Adjust **VOLUME**.

Locating a Particular Portion

Locating a particular selection (AMS*)
To locate the beginning of the current selection, press I◄◄ once.
To locate the next selection, press ►►I once .

Locating a particular point in a selection (SEARCH)
To go back at high speed, keep I◄◄ pressed.
To go ahead at high speed, keep ►►I pressed.

* AMS is the abbreviation of Automatic Music Sensor.

- If you press I◄◄ repeatedly, the player locates the previous selections. If you press ►►I repeatedly, the player locates the next selections and stops at the last selection.
- To stop play, press **OFF/ALARM RESET**.
- To pause, press CD ►II and the "CD ►" indication flashes. To resume play, press CD ►II again.
- To change the clock mode to track mode, press **TRACK/ENTER/CLOCK**.
  Press **TRACK/ENTER/CLOCK** again, and the current time appears.
- To obtain a powerful bass, set **MEGA BASS** to ON.
- To eject a disc, slide **PULL OPEN** out.
- To handle compact discs
  This way

Handle the disc by its edge.

Not this way

Do not touch the surface.

Do not stick paper or tape nor write anything on the surface.

This section is extracted from instruction manual.

Notes

- Do not open the CD compartment lid during playing, otherwise, the disc will be damaged. Be sure to stop the disc first.
- When you press CD ▶II, if there is no disc in the CD compartment, the "00" indication flashes for about 3 seconds and the unit will be turned off.
- If the A CD alarm time comes during listening to the CD, the track changes to that preset by pressing **BAND/WAKE UP TRACK**.

Playing the Radio

Manual Tuning

1. Press **RADIO/SLEEP**.
   The "RADIO" indication lights and the band and frequency of the last station chosen appear in the display. After 10 seconds, the indication becomes the current time but the "RADIO" indication remains.
2. Press **BAND/WAKE UP TRACK** to select the band, **FM** or **AM**.
   Each press of **BAND/WAKE UP TRACK** changes the band from **FM** to **AM** or vice versa.
3. Tune in a station by pressing **TUNING/TIME SET +** or **-**.
   The **FM** channel step is set to 0.1 MHz and the **AM** channel step is set to 10 kHz. Beeps sound at the band edge. After 10 seconds, the indication becomes the current time but the "RADIO" indication remains.
4. Adjust **VOL**.

- To turn off the radio, press **CD** or **OFF/ALARM RESET**.
- To improve radio reception
  - **FM:** Extend the FM wire antenna to improve FM reception.
  - **AM:** Rotate the unit horizontally for optimum reception. A ferrite bar antenna is built into the unit.
- To check the station you are listening to, press **RADIO**. The band and frequency appear for 10 seconds.

Preset Tuning

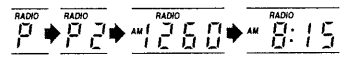
You can preset up to five **FM/AM** stations (one station for each **MEMORY PRESETS** number button 1 to 5.)

Note

When you use the radio alarm, preset the station you want for the alarm in **MEMORY PRESETS** button 1, as the preset 1 station is the wake up station.

Example: To set AM 1260 kHz in **MEMORY PRESETS** button 2.

1. Tune in the AM 1260 kHz (see "Manual Tuning").
2. Press **TRACK/ENTER/CLOCK**.
   P (preset) indication flashes.
3. Keep **TRACK/ENTER/CLOCK** pressed and **MEMORY PRESETS** button 2 while P is flashing.
   P changes to P2 (preset number) and the beeps sound. The station is preset. After 2 seconds the indication becomes the band and frequency. Then after 10 seconds, the indication becomes the current time.

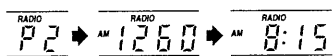


4. Repeat steps **1** to **3** for each station to be preset.

- **To change the preset station,** preset a new station in the number of which you want to change the station. The previous station is cancelled.

Tuning in a Preset Station

1. Press **RADIO/SLEEP**.
2. Press **MEMORY PRESETS** number button of the station you want to tune in.
   The selected preset number appears in the display window. After 2 seconds, the band and frequency of the preset station appear. Then after 10 seconds, the indication becomes the current time.



To Obtain Powerful Bass
Switch **MEGA BASS** to **ON**. The "MEGA BASS" system produces a powerful bass with the use of a bass reflex system added to a normal speaker system.

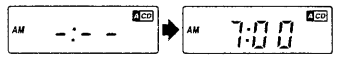
Setting the Alarm

You can set the CD, radio and buzzer alarms at the preset time. Before setting the alarm, be sure to set the clock. (See "Setting the Clock".)

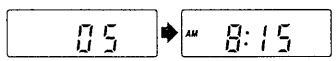
Setting the Alarm Time

To set the A CD alarm

1. While holding down **ALARM A**, press **TUNING/TIME SET +** or **–** till the desired time appears in the display window. The "A CD" flashes.



2. Release **ALARM A**. The alarm time is set and the indication becomes the current time.
3. While holding down **BAND/WAKE UP TRACK**, set the desired track by pressing **TUNING/TIME SET +** or **–**.
4. Release **BAND/WAKE UP TRACK**.
   The track is preset and the indication becomes the current time.



Note

When the CD player is preset to start with track 5, it will always start with track 5 even though you change the CD, unless you change **BAND/WAKE UP TRACK**.

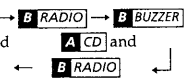
To set the B RADIO / B BUZZER alarm

1. While holding down **ALARM B**, press either **TUNING/TIME SET +** or **–** till the desired time appears in the display window.
   The "B RADIO" or "B BUZZER" and "-:--"indication flash.
2. Release **ALARM B**. The alarm time is set and the indication becomes the current time.

Setting the Alarm Mode

Before setting **MODE**, be sure to set the alarm time. (See "Setting the Alarm Time".)

1. Press **MODE** till the alarm you want appears in the display window.
   Each time you press **MODE**, the alarm indication changes as follows.



- To stop the alarm, press **OFF/ALARM RESET**. The alarm will sound at the same time the next day.
- To cancel the alarm, while holding down **MODE**, press **OFF/ALARM RESET**. Or press **MODE** until A CD, B RADIO, or B BUZZER indication does not appear.
- To check the alarm time you set, press the **ALARM A** or **ALARM B**.

Notes

- The alarm does not function, unless you set the clock and A CD / B RADIO / B BUZZER alarm.
- If you set the CD alarm and radio or buzzer alarm at the same time, the CD alarm sounds.
- When you set the CD alarm, if there is no disc in the CD player, the buzzer sound will sound at the time you set.
- The selected alarm sounds at the time you set, and automatically turns off after 60 minutes.
- When the CD alarm comes on, the "A CD" indication flashes.
  If you want to stop flashing, press CD ▶II. The CD player will stop playing at the last track.
- When the radio alarm comes on, the "B RADIO" indication flashes. If you want to keep on listening to radio and stop flashing, press **RADIO/SLEEP**. The "B RADIO" indication remains.
- The buzzer sound level is fixed, and independent of **VOLUME**.

To Doze for a Few More Minutes

1. Press **SNOOZE/SLEEP OFF**. The CD, radio or buzzer will shut off but will automatically come on again after about 8 minutes. You can repeat this process as many times as you want to.

- While **SNOOZE/SLEEP OFF** function is operating, the alarm indication flashes.

Setting the Sleep Timer

By setting the sleep timer, you can fall asleep to the radio sound. The radio turns off after the selected time.

1. Turn on the radio and tune in the desired station. See "Playing the Radio".
2. Press **RADIO/SLEEP** while the band and frequency of the station appear.
3. Select the desired operating time by pressing **RADIO/SLEEP**.
   Each time you press **RADIO/SLEEP**, the sleep timer indication changes as follows.
   90 → 60 → 30 → 15 → Off
   ↑ Frequency indication ↵
   The sleep timer is set and it will go off after the selected minutes. After 5 seconds, the indication becomes the current time.

- To turn off the sleep timer, press **SNOOZE/ SLEEP OFF**.
- To cancel the sleep timer, select OFF or press **RADIO/SLEEP** again after the indication becomes the current time at step 3.

To Use Both Sleep Timer and Alarm

You can fall asleep to the radio sound and you will be awakened by the CD, radio or buzzer alarm at the preset time.

1. Set the alarm. (See "Setting the Alarm".)
2. Set the sleep timer. (See "Setting the Sleep Timer".)

Precautions

- Operate the unit on the power sources specified in "Specifications".
- The nameplate indicating voltage, etc. is located at the bottom.
- Disconnect the cord by grasping the plug. Never pull it by the cord.
- As the laser beam used in the CD player section is harmful to the eyes, do not attempt to disassemble the casing.
  Refer servicing to qualified personnel only.
- Do not leave the unit in a location near a heat source such as a radiator or airduct, or in a place subject to direct sunlight, excessive dust, mechanical vibration, or shock.
- Allow adequate air circulation to prevent internal heat build-up. Do not place the unit on a surface (a rug, a blanket, etc.) or near materials (a curtain) which might block the ventilation holes.
- Should any liquid or solid object fall into the unit, unplug the unit and have it checked by a qualified personnel before operating it further.
- When the casing becomes soiled, clean it with a soft cloth dampened with a mild detergent solution. Never use abrasive cleansers or chemical solvents, as they may mar the casing.

If you have any question, please consult your nearest Sony dealer.

Troubleshooting Guide

Should any problem occur with the unit, make the following checks to determine whether or not servicing is required. If the problem persists, consult the nearest Sony dealer.

The clock does not show the correct time.
- There was an electrical power interruption lasting for more than 1 minute.

The CD player does not operate.
- Did you place a disc correctly?
  The disc should be placed with the labelled surface up.
- Did you close the compartment lid completely?
- Dusty or defective disc—Clean the disc with an optional cleaning cloth. Wipe the disc from the center out.

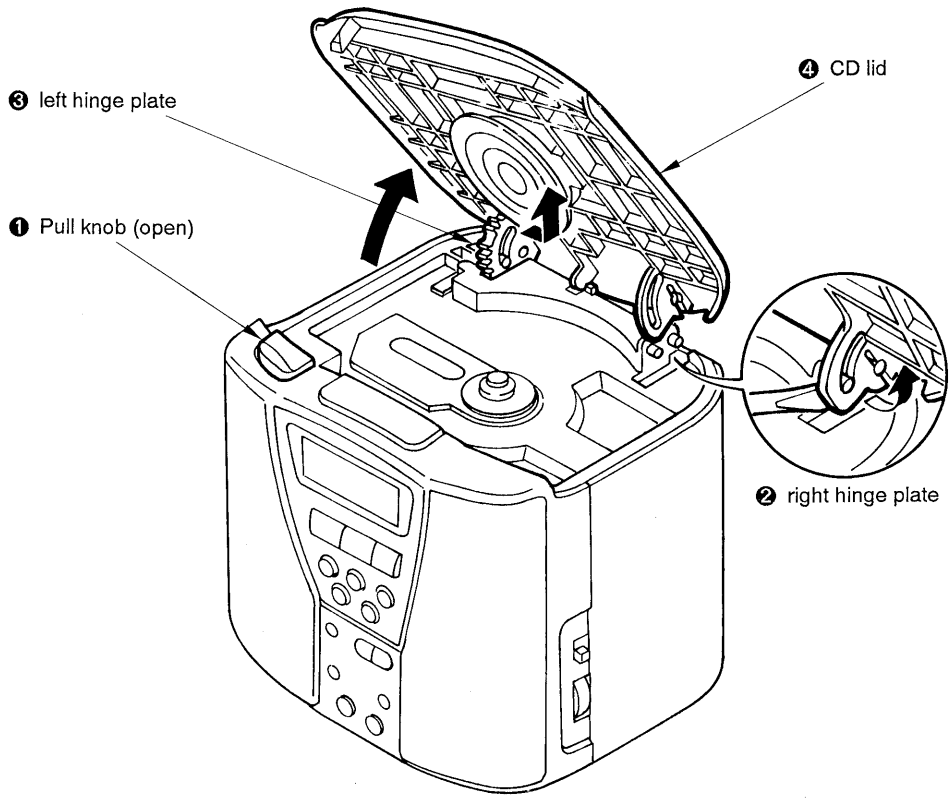
Skipping of sound in CD operation
- Dusty or defective disc—Clean the disc.
- Dirty lens—Clean the lens with a commercially available blower.
- Strong vibration

The CD, radio or buzzer alarm does not come on at the preset time.
- Did you set the current time correctly?
- Did you set the alarm time correctly?
- Did you place a disc?
- Did you close the CD compartment lid completely?
- Did you preset the station you want for the wake up station in preset button 1?
- Did you adjust the volume?
  If the volume is turned down completely, the CD or radio alarm is not heard.

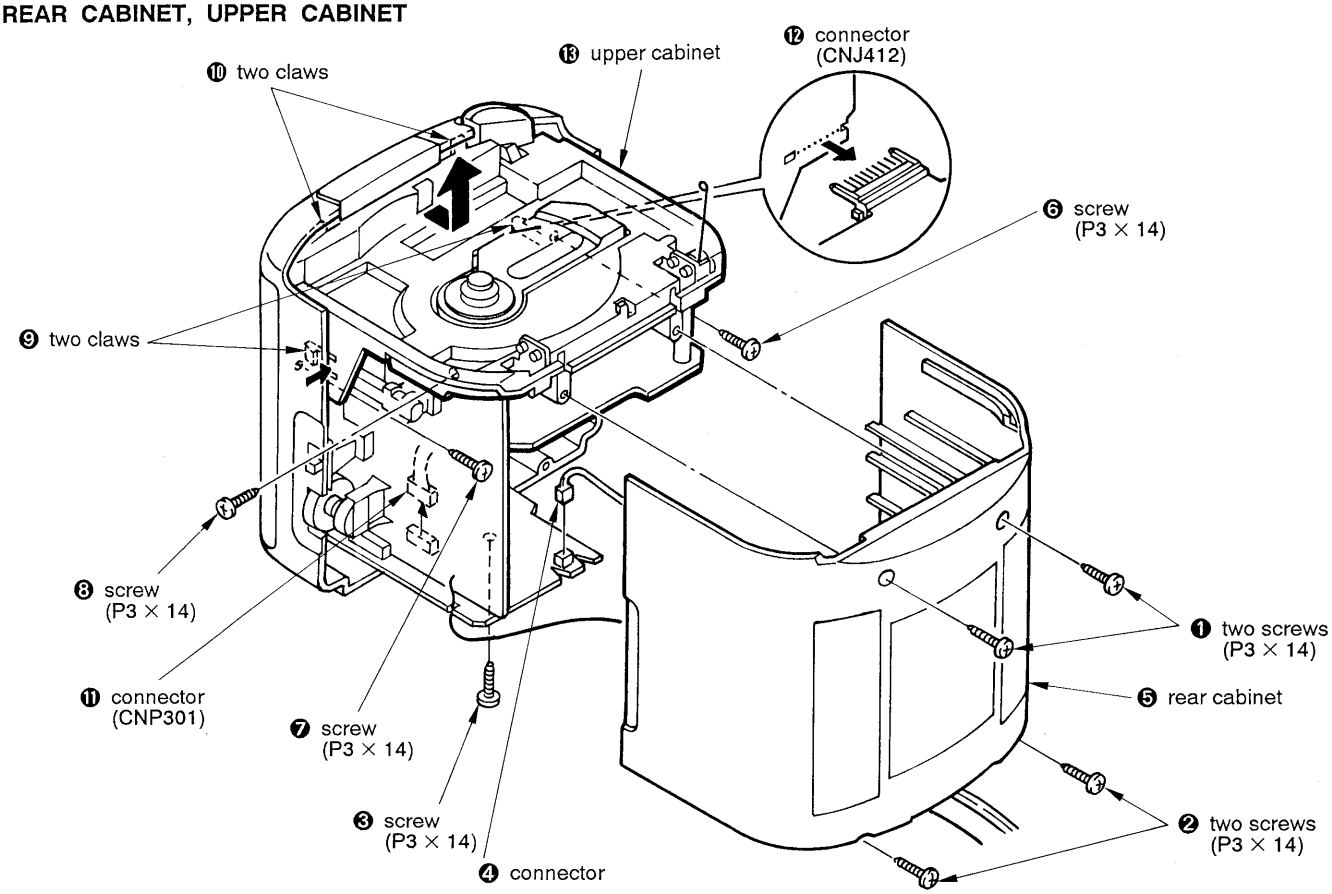
SECTION 3
DISASSEMBLY

Note: Follow the disassembly procedure in the numerical order given.

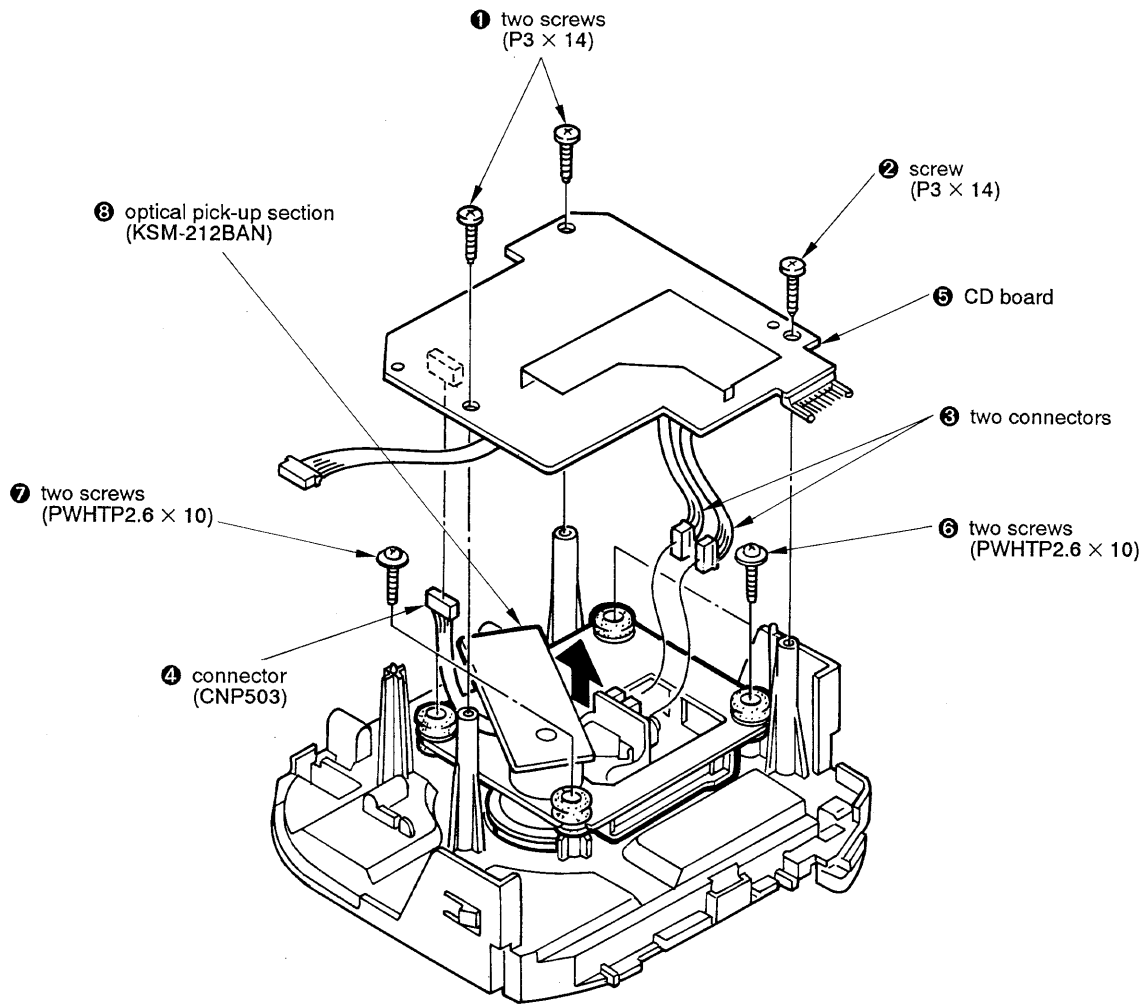
CD LID



REAR CABINET, UPPER CABINET


❿ two claws
⓭ upper cabinet
⓬ connector (CNJ412)
❻ screw (P3 × 14)
❾ two claws
❽ screw (P3 × 14)
⓫ connector (CNP301)
❼ screw (P3 × 14)
❸ screw (P3 × 14)
❹ connector
❶ two screws (P3 × 14)
❺ rear cabinet
❷ two screws (P3 × 14)

OPTICAL PICK-UP SECTION
(KSM-212BAN)



SECTION 4
ELECTRICAL ADJUSTMENTS

PRECAUTION

1. Adjustments should be performed in the order given.
   Generally playback circuit adjustments should be completed before performing recording circuit adjustments.
2. Adjustments should be performed for both L-ch and R-ch.
   Switches and controls should be set as follows unless otherwise specified.

- Positions of switches and control knobs
  VOLUME ..... Specified output level
  MEGA BASS SWITCH ..... Off

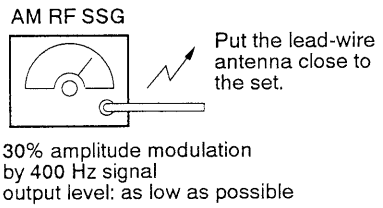
- **Standard output level**

Output Pin	Speaker (L, R)
Signal source impedance	4 Ω
Output signal level	0.775 V (0 dB)

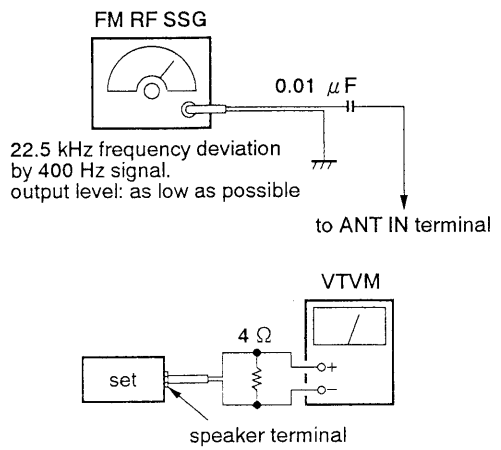
0 dB = 0.775 V

4-1. TUNER SECTION

[AM]
Function switch: RADIO
BAND switch: AM


AM RF SSG
Put the lead-wire antenna close to the set.
30% amplitude modulation by 400 Hz signal
output level: as low as possible

[FM]
Function switch: RADIO
BAND switch: FM



- Repeat the procedures in each adjustment several times, and the frequency coverage and tracking adjustments should be finally done by the trimmer capacitors.

( ): Except US, Canadian model

AM IF ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
T1	450 kHz

AM FREQUENCY COVERAGE ADJUSTMENT		
Adjust for a reading on digital voltmeter		
L5	530kHz (531kHz)	2.5 V
Confirm	1,710kHz (1,602kHz)	Less than 9.5 V

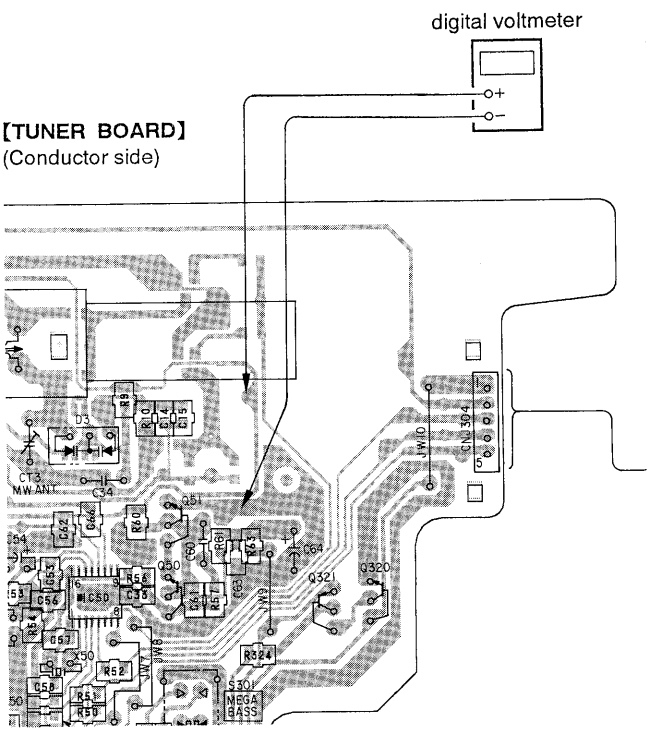
AM TRACKING ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
L4	580 kHz (621 kHz)
CT3	1,490 kHz (1,404 kHz)

FM TRACKING ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
L2	87.5 MHz
CT1	108.0 MHz

FM VCO Voltage Check

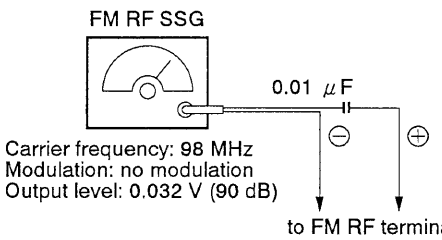
Procedure:
1. Tune the set to 108.0 MHz.
2. Confirm that the digital voltmeter reading is below 11 V.
3. Tune the set to 87.5 MHz.
4. Confirm that the digital voltmeter reading is above 1.2 V.

Connection:
For AM frequency coverage adjustment and FM VCO voltage check.



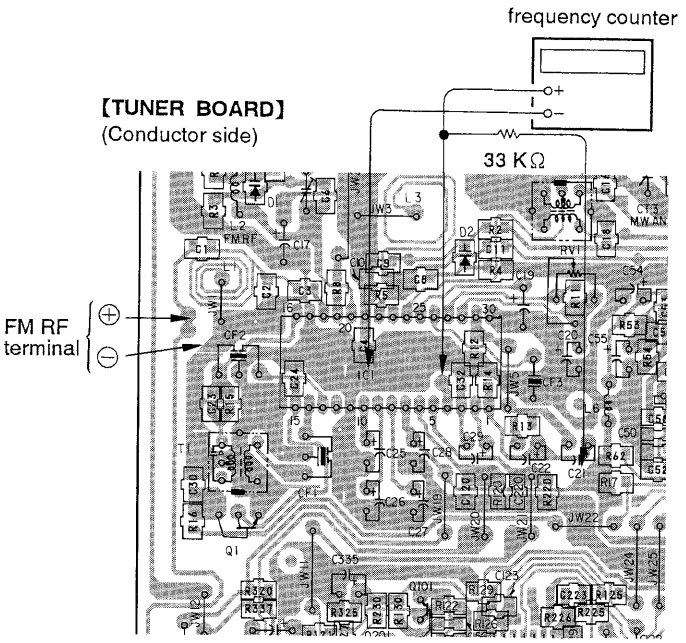
FM STEREO Adjustment

Procedure:

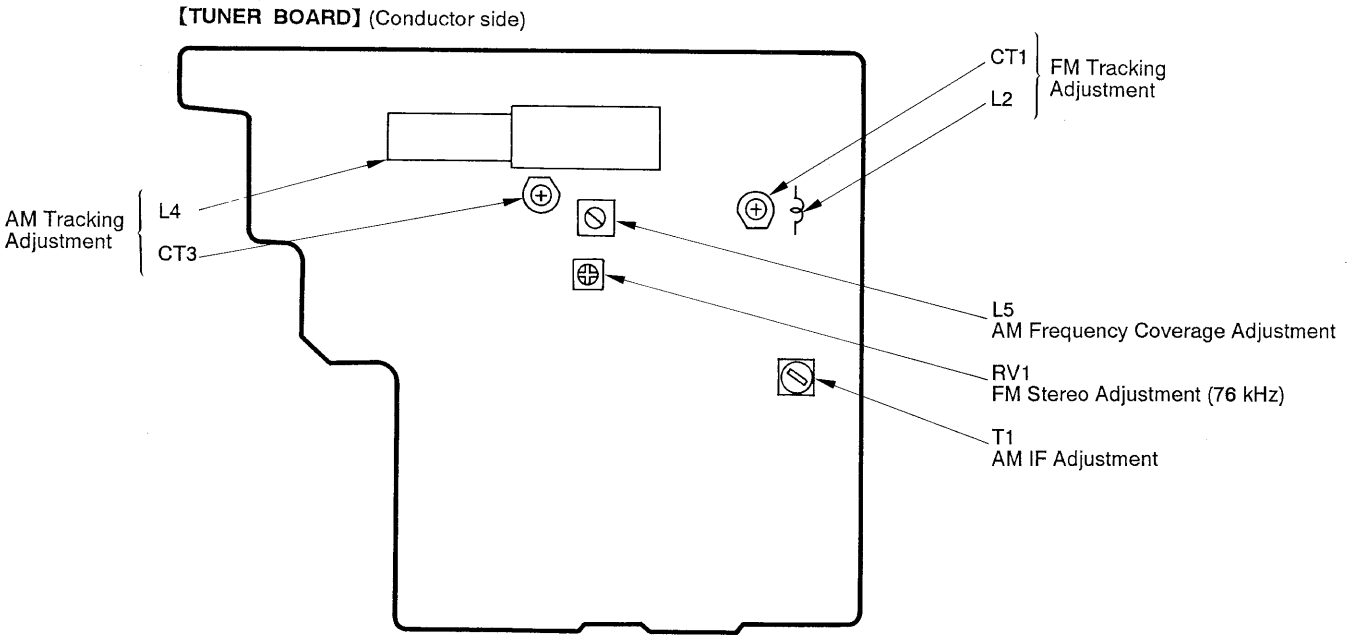


1. Connect the frequency counter to ④ and ⑦ pins of IC1 as shown the figure right.
2. Tune the set to 98 MHz.
3. Adjust RV1 for 76 kHz ±500 Hz reading on frequency counter.

Connection:



Adjustment Location:



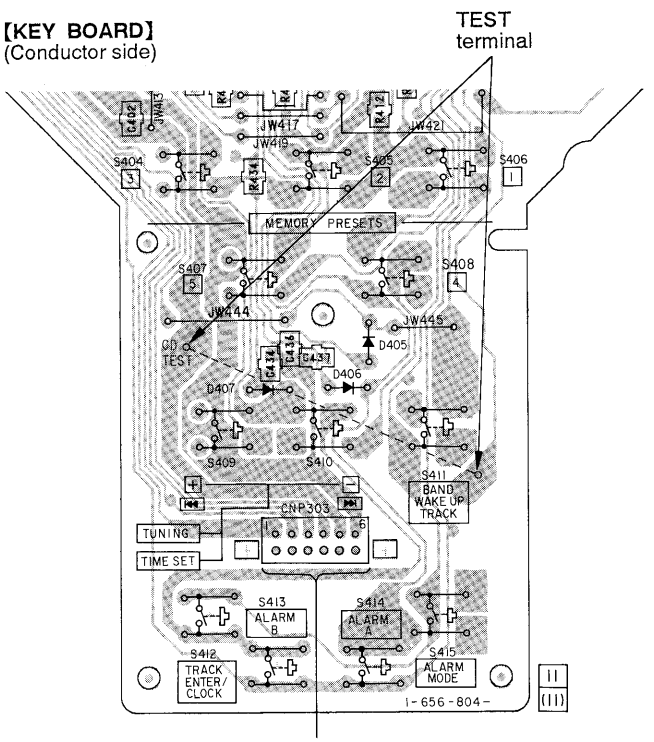
4-2. CD SECTION

Note:
Tracking Balance Adjustment and Tracking Gain Adjustment are done automatically in this set.

TEST MODE

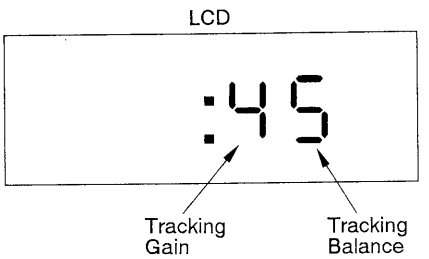
1. Set the open switch (S420) to the CLOSE position.
2. Short the TEST terminal, or keep pressing the CD ▶II, ALM MODE, and P5 keys simultaneously, and under this condition turn on the AC power.
3. The test pattern will appear on the LCD.
4. Open the TEST terminal, or release the CD ▶II, ALM MODE, and P5 keys.
5. Press the CD ▶II key, and the spindle motor runs and the focus search is repeated.
   At this time, check that the optical pickup objective lens moves smoothly without a sticking or noise.
6. Load the test disc (YEDS-18, Part No. 3-702-101-01), and perform automatic adjustment after the focus search succeded. (See "CD AUTOMATIC ADJUSTMENT AND CORRECTION" below)
7. After automatic adjustment is finished, move the sled motor to the center. At this time, keep pressing the ▶▶| and |◀◀ keys to confirm that optical pickup moves smoothly via most inside track → most outside track → most inside track without a sticking or noise.
8. Confirm the traverse waveform.
9. Press the WAKE UP TRACK key.
10. The tracking servo and the sled servo are turned on, the mute is cancelled, the test pattern display on, LCD disppears, and normal CD mode becomes active.

[KEY BOARD]
(Conductor side)



CD AUTOMATIC ADJUSTMENT AND CORRECTION

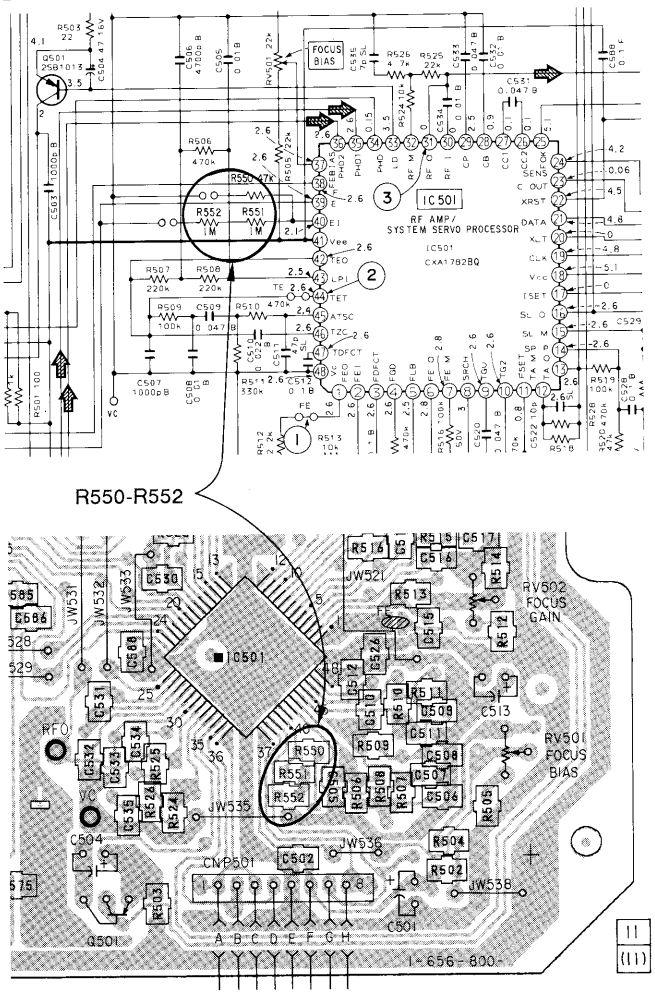
In this set, both the tracking gain and the tracking balance are automatically adjusted in 8 steps of 0 to 7, and its adjusted value can be displayed on the LCD by shorting the test pins.
The tracking balance varies depending on the optical pickup block, and therefore if its value is "0" or "7", it can be corrected with an external resistor (when the test disc YEDS-18 is used).



1. When tracking balance is "0", add R550 (Part No. 1-216-089-00, 47 k Ω).
2. When tracking balance is "7", add R551 and R552 (Part No. 1-216-121-00, 1 M Ω).

Note: The tracking gain cannot be corrected because it varies depending on a playing disc.

[CD BOARD]



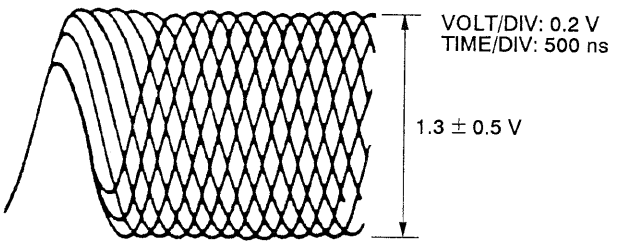
Focus Bias Adjustment

This adjustment is to be done when the optical block is replaced.

Adjustment Procedure:

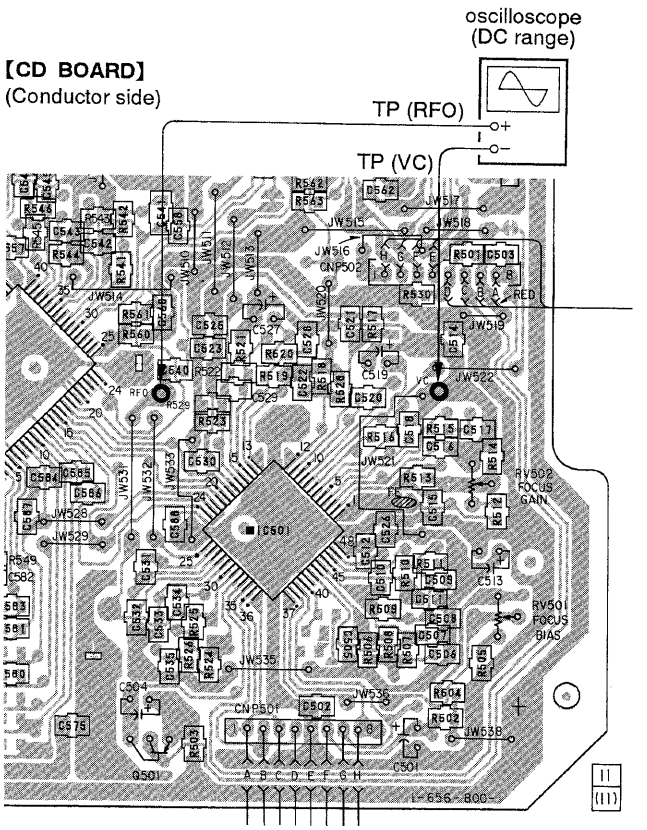
1. Connect the oscilloscope to test point TP (VC) and TP (RFO) on CD board.
2. Insert the disc (YEDS-18. Part No. 3-702-101-01) and press CD ▶II key to play.
3. Move the optical pick-up to the music area on the disc to enable easy visibility of the eye pattern by ▶▶I and I◀◀ button pressing.
4. Adjust RV501 so that the oscilloscope waveform is as shown in the figure below (eye pattern).
   A good eye pattern means that the diamond shape (◇) in the center of the waveform can be clearly distinguished.

- RF signal reference waveform (eye pattern)



When observing the eye pattern, set the oscilloscope for AC range and raise vertical sensitivity.

Connection:



Focus Gain Adjustment

A frequency response analyzer is necessary in order to perform this adjustment exactly.
However, this gain has a margin, so even if it is slightly off, there is no problem. Therefore, do not perform this adjustment.
Focus gain determines the pick-up follow-up (vertical and horizontal) relative to mechanical noise and mechanical shock when the 2-axis device operate.
However, as these reciprocate, the adjustment is at the point where both are satisfied.

- When gain is raised, the noise when the 2-axis device operates increases.
- When gain is lowered, mechanical shock and skipping occurs more easily.
- When gain adjustment is off, the symptoms below appear.

Symptoms \ Gain	Focus
• The time until music starts becomes longer for STOP → PLAY or automatic selection. (I◀◀, ▶▶I buttons pressed.) (Normally takes about 2 seconds.)	low
• Music does not start and disc continues to rotate for STOP → PLAY or automatic selection. (I◀◀, ▶▶I buttons pressed.)	—
• Sound is interrupted during PLAY. Or time counter display stops progressing.	—
• More noise during 2-axis device operation.	high

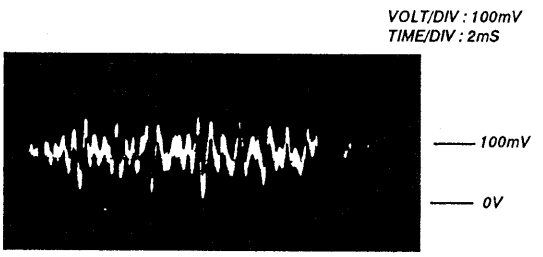
The following is a simple adjustment method.

– Primary Adjustment –

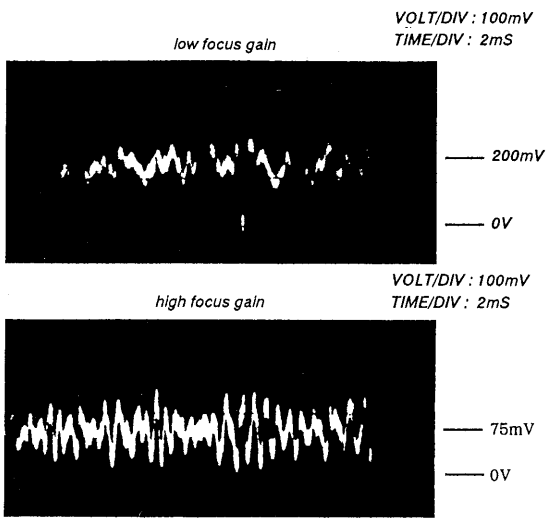
Note: Since exact adjustment cannot be performed, remember the positions of the controls before performing the adjustment. If the positions after the primary adjustment are only a little different, return the controls to the original position.

Procedure:

1. Keep the set horizontal.
   (If the set is not horizontal, this adjustment cannot be performed due to the gravity against the 2-axis device.)
2. Insert the disc (YEDS-18) and press ▶II button.
3. Connect the oscilloscope TP (FE) and TP (VC) on CD board.
4. Adjustment RV502 on digital board so that the waveform is as shown in the figure below.

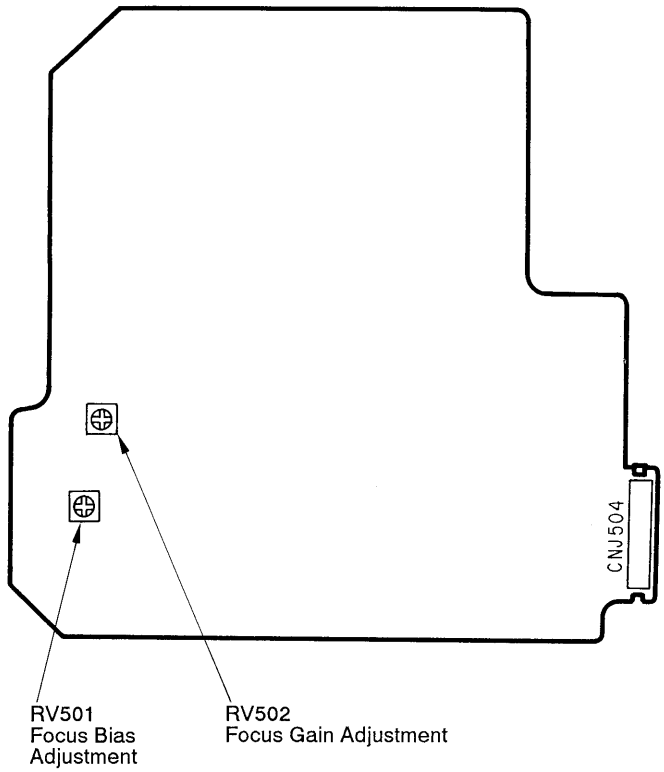


- Incorrent Examples (DC level changes more than on adjusted waveform)



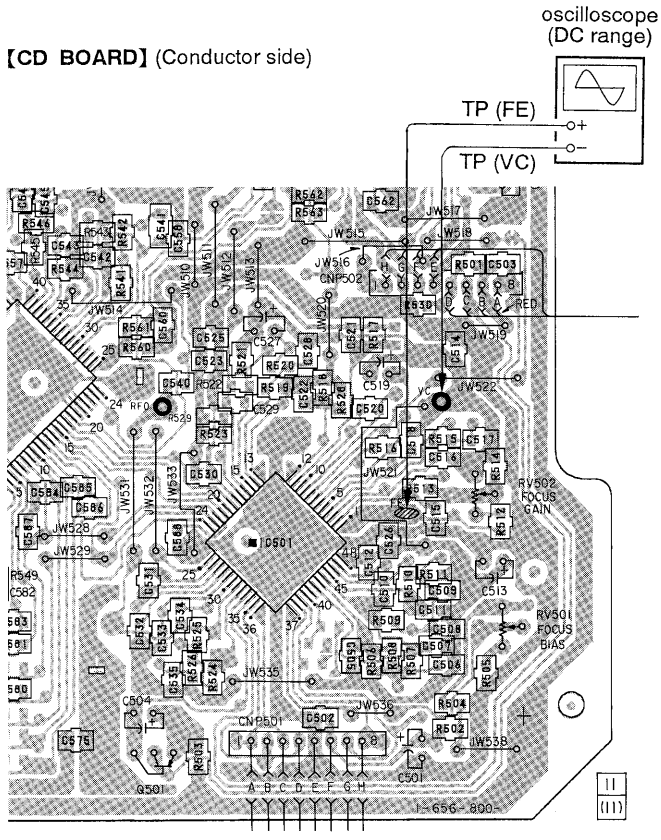
Adjustment Location:

【CD BOARD】 (Conductor side)



Connection:

【CD BOARD】 (Conductor side)



SECTION 5
DIAGRAMS

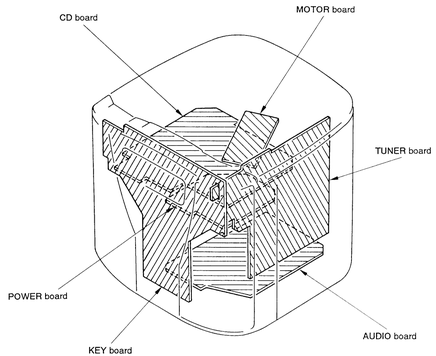
5-1. IC PIN FUNCTION DESCRIPTION
KEY BOARD IC401 μPD75306BGF-035-3B9

Pin No.	Pin Name	I/O	Function
1	SEG12	O	Segment output
2	SEG13	O	Segment output
3	SEG14	O	Segment output
4	SEG15	O	Segment output
5	SEG16	O	Segment output
6	SEG17	O	Segment output
7	SEG18	O	Segment output
8	SEG19	O	Segment output
9	S20 (NC)	O	Not used (open)
10	S21 (NC)	O	Not used (open)
11	S22 (NC)	O	Not used (open)
12	S23 (NC)	O	Not used (open)
13	S24 (NC)	O	Not used (open)
14	S25 (NC)	O	Not used (open)
15	S26 (NC)	O	Not used (open)
16	S27 (NC)	O	Not used (open)
17	UK 12H	O	Not used (open)
18	UK 24H	O	Not used (open)
19	AE 24H	O	12/24 hours system
20	J 12H	O	Not used (open)
21	COM1	O	Common output
22	COM2	O	Common output
23	COM (NC)	O	Not used (open)
24	COM (NC)	O	Not used (open)
25	BIAS	O	LCD power supply bias control
26	VLC0	—	LCD power supply
27	VLC1	—	LCD power supply
28	VLC2	—	LCD power supply
29	AU-MUT	O	Audio mute output
30	RADIO ON	O	Radio control output
31	R LAT	O	Latch signal for PLL output
32	TEST-A	—	Not used (GND)
33	Vss	—	GND
34	TEST-B	—	Not used (GND)
35	POWER ON	O	Power on output
36	BZ-ATT	O	Buzzer attenuator
37	CD-ON	O	CD on output
38	AC IN	I	AC in detect
39	CK	I/O	Serial clock
40	DATA	I/O	Serial data output, serial bus input/output

Pin No.	Pin Name	I/O	Function
41	SQSI	I	Sub code Q 80bit serial input
42	SENS	I	Sub code Q 80bit serial input
43	CIN	I	Track jump count signal input
44	SCOR	I	Sub code sync input
45	DOOR IN	I	CD door close input
46	KEYSOUS1	O	Key source output
47	KEYSOUS2	O	Key source output
48	KEYSOUS3	O	Key source output
49	BUZZER	O	Buzzer output
50	XREST	I	Reset input
51	DATA	O	CD data output
52	XLAT	O	Latch output
53	CLOK	O	CD clock output
54	VDD	—	Power supply (+5 V)
55	XT1	I	Sub system clock oscillation (32 kHz)
56	XT2	—	
57	NC	—	No connection
58	X1	I	Main system clock oscillation (4.19 MHz)
59	X2	I	
60	KEYRET0	I	Key return input
61	KEYRET1	I	Key return input
62	KEYRET2	I	Key return input
63	KEYRET3	I	Key return input
64	KEYRET4	I	Key return input
65	KEYRET5	I	Key return input
66	KEYRET6	I	Key return input
67	KEYRET7	I	Key return input
68	RESET	I	System reset input
69	SO (NC)	O	Not used (open)
70	SEG01	O	Segment output
71	SEG02	O	Segment output
72	SEG03	O	Segment output
73	SEG04	O	Segment output
74	SEG05	O	Segment output
75	SEG06	O	Segment output
76	SEG07	O	Segment output
77	SEG08	O	Segment output
78	SEG09	O	Segment output
79	SEG10	O	Segment output
80	SEG11	O	Segment output

5-2. PRINTED WIRING BOARD

- **Circuit Boards Location**

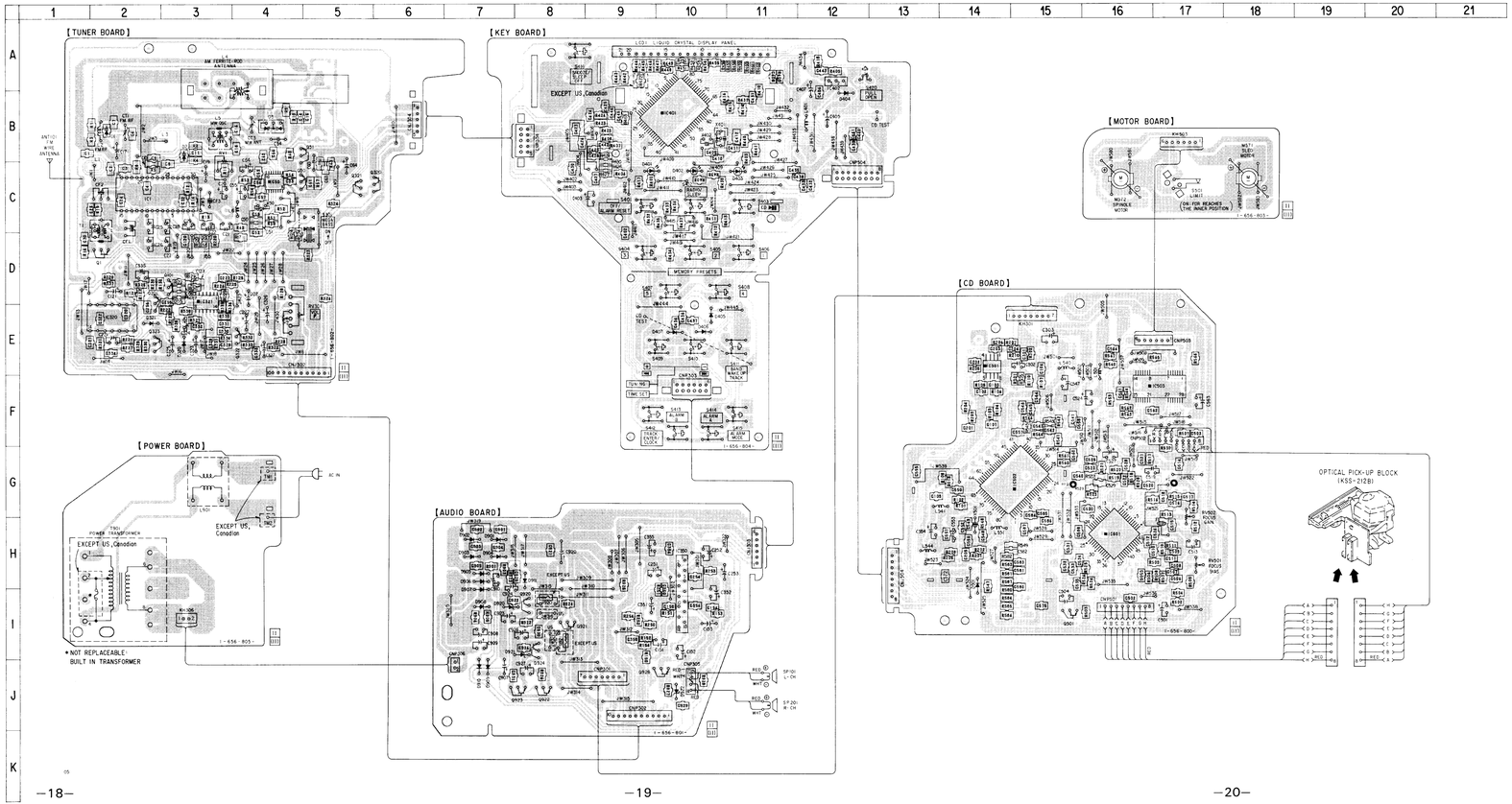


- **Semiconductor Location**

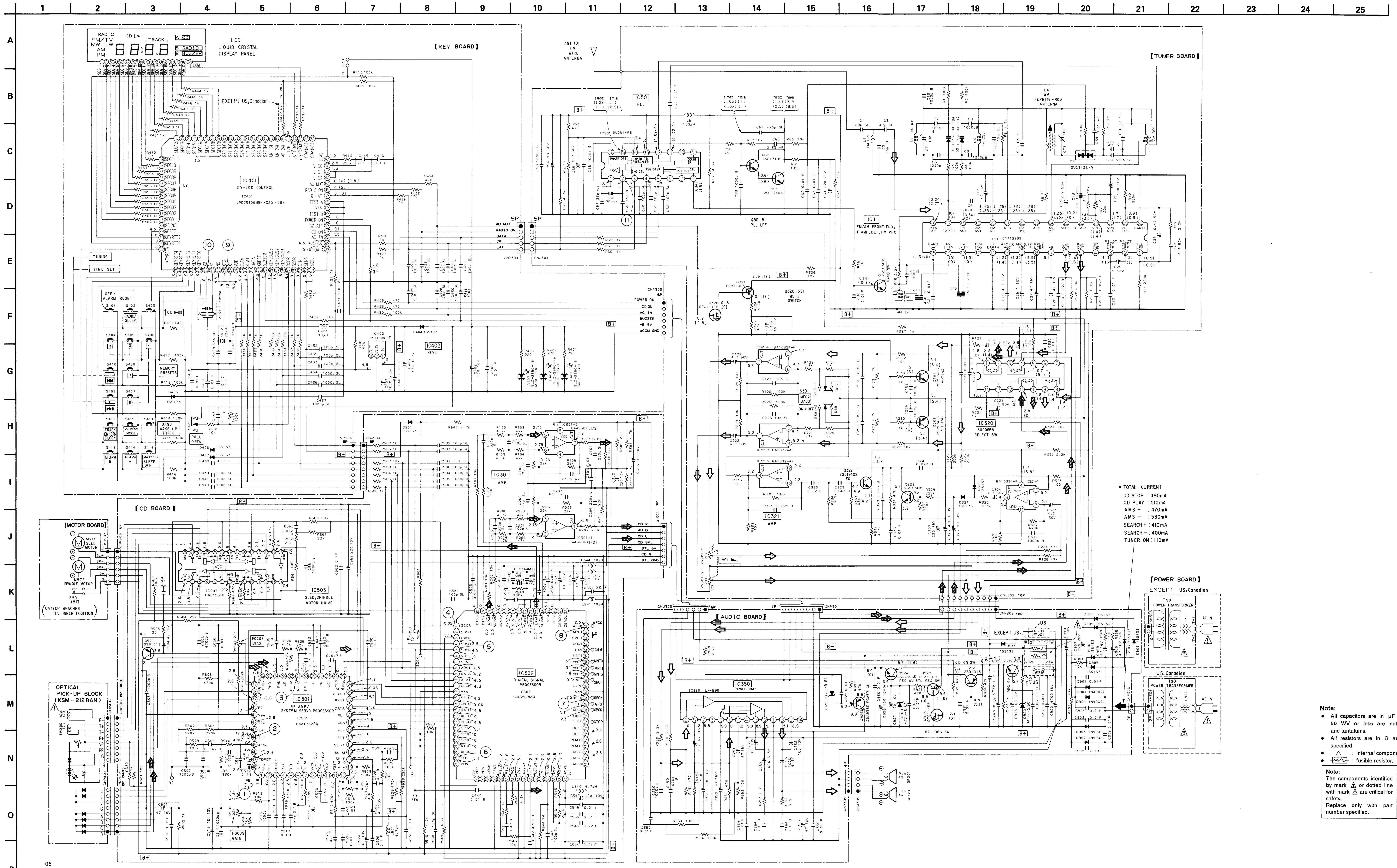
Ref. No.	Location
D1	B-2
D2	B-3
D3	B-4
D320	E-3
D321	E-2
D401	C-9
D402	C-10
D403	C-11
D404	B-12
D405	E-10
D406	E-10
D407	E-10
D501	H-14
D901	H-7
D902	H-7
D903	H-7
D904	H-7
D905	H-7
D906	H-7
D907	H-7
D908	I-7
D909	J-7
D910	J-7
D911	H-8
D920	I-7
D921	I-8
D922	J-10
IC1	C-2
IC50	C-4
IC301	E-14
IC320	E-2
IC321	D-3
IC350	H-10
IC401	B-10
IC402	A-12
IC501	H-16
IC502	G-15
IC503	F-17
Q1	D-2
Q50	C-4
Q51	B-4
Q101	D-3
Q201	D-2
Q320	C-5
Q321	C-5
Q322	E-4
Q323	E-2
Q501	I-15
Q920	I-8
Q921	I-8
Q922	J-8
Q923	J-8
Q924	I-8
Q926	J-10

Note:

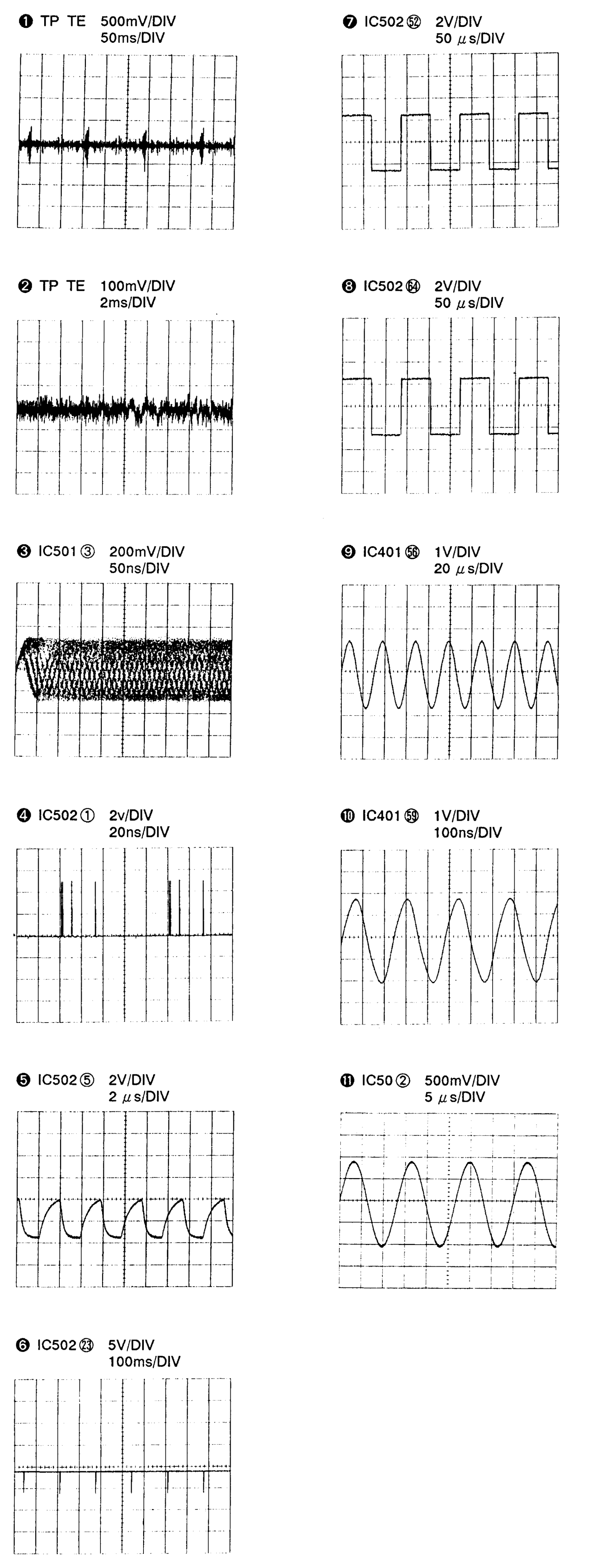
- ○——○ : parts extracted from the component side.
- ■ : parts mounted on the conductor side.
- ⊏⊐ : indicates side identified with part number.
- △ : internal component.
- ▨ : Pattern from the side which enables seeing.


1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21
A B C D E F G H I J K
[TUNER BOARD]
[KEY BOARD]
[MOTOR BOARD]
[CD BOARD]
[POWER BOARD]
[AUDIO BOARD]
EXCEPT US,Canadian
EXCEPT US, Canadian
MEMORY PRESETS
OPTICAL PICK-UP BLOCK (KSS-212B)
* NOT REPLACEABLE BUILT IN TRANSFORMER
05

5-3. SCHEMATIC DIAGRAM • See page 26 for IC Block Diagrams.


LCD1
LIQUID CRYSTAL
DISPLAY PANEL
[KEY BOARD]
IC401
CD-LCD CONTROL
μPD75306BGF-035-3B9
EXCEPT US,Canadian
IC402
RESET
TUNING
TIME SET
OFF / ALARM RESET
RADIO/SLEEP
CD ▶II
MEMORY PRESETS
TRACK ENTER/CLOCK
ALARM MODE
BAND WAKE UP TRACK
PULL OPEN
ALARM B
ALARM A
SNOOZE/SLEEP OFF
ANT 101
FM
WIRE
ANTENNA
IC50
PLL
Q50,51
PLL LPF
[TUNER BOARD]
L4
AM
FERRITE-ROD
ANTENNA
IC1
FM/AM FRONT-END,
IF AMP, DET, FM MPX
CXA1238S
Q320,321
MUTE
SWITCH
IC320
BU4066B
SELECT SW
IC321
AMP
S301
MEGA BASS
IC301
AMP
[CD BOARD]
[MOTOR BOARD]
M571
SLED
MOTOR
M572
SPINDLE MOTOR
S501
LIMIT
(ON: FOR REACHES THE INNER POSITION)
IC503
SLED, SPINDLE
MOTOR DRIVE
OPTICAL
PICK-UP BLOCK
(KSM-212BAN)
IC501
RF AMP/
SYSTEM SERVO PROCESSOR
CXA1782BQ
FOCUS BIAS
FOCUS GAIN
IC502
DIGITAL SIGNAL
PROCESSOR
CXD2508AQ
[AUDIO BOARD]
IC350
POWER AMP
LA4598
BTL REG SW
VOL
• TOTAL CURRENT
CD STOP : 490mA
CD PLAY : 510mA
AMS + : 470mA
AMS − : 530mA
SEARCH+ : 410mA
SEARCH− : 400mA
TUNER ON : 110mA
[POWER BOARD]
EXCEPT US,Canadian
T901
POWER TRANSFORMER
AC IN
US,Canadian
T901
POWER TRANSFORMER
AC IN
05

• Waveforms


❶ TP TE 500mV/DIV 50ms/DIV
❷ TP TE 100mV/DIV 2ms/DIV
❸ IC501③ 200mV/DIV 50ns/DIV
❹ IC502① 2v/DIV 20ns/DIV
❺ IC502⑤ 2V/DIV 2 μs/DIV
❻ IC502㉓ 5V/DIV 100ms/DIV
❼ IC502㊷ 2V/DIV 50 μs/DIV
❽ IC502㊹ 2V/DIV 50 μs/DIV
❾ IC401㊻ 1V/DIV 20 μs/DIV
❿ IC401㊾ 1V/DIV 100ns/DIV
⓫ IC50② 500mV/DIV 5 μs/DIV

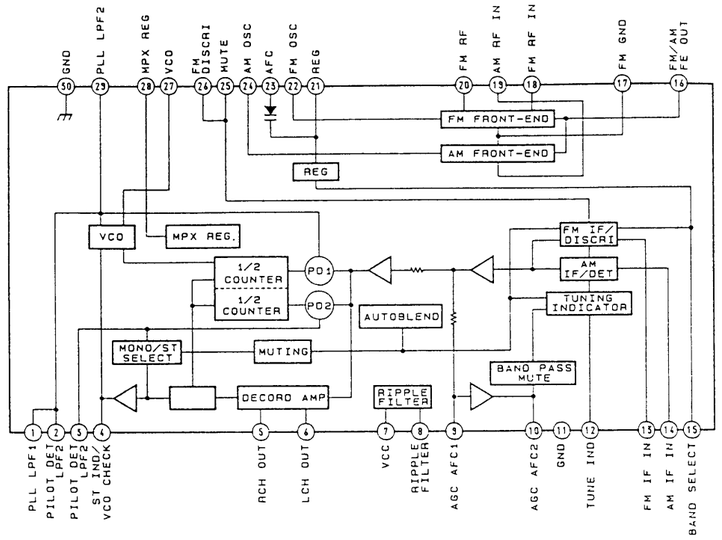
Note:
- All capacitors are in μF unless otherwise noted. pF: μμF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and ¼ W or less unless otherwise specified.
- △ : internal component.
- -ᴡ∿- : fusible resistor.

Note:	Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

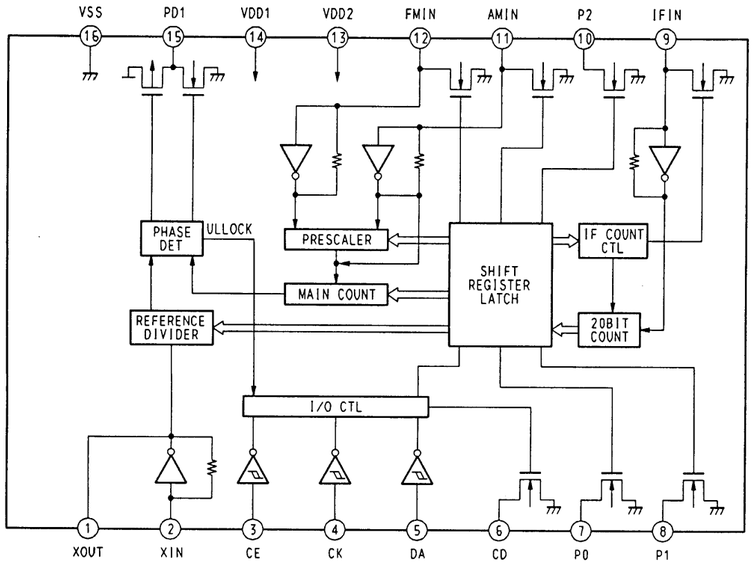
- B+ : B + Line.
- ▭ : panel designation.
- ▭ : adjustment for repair.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark : CD
  ( ) : FM
  < > : AM
  [ ] : CD PAUSE
- Voltages are taken with a VOM (10 MΩ/V).
  Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope.
  Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : FM
  ⇨ : CD

• **IC Block Diagrams**

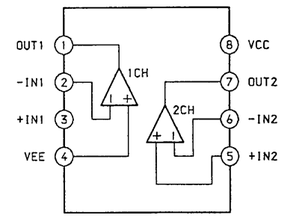
IC1 CXA1238S



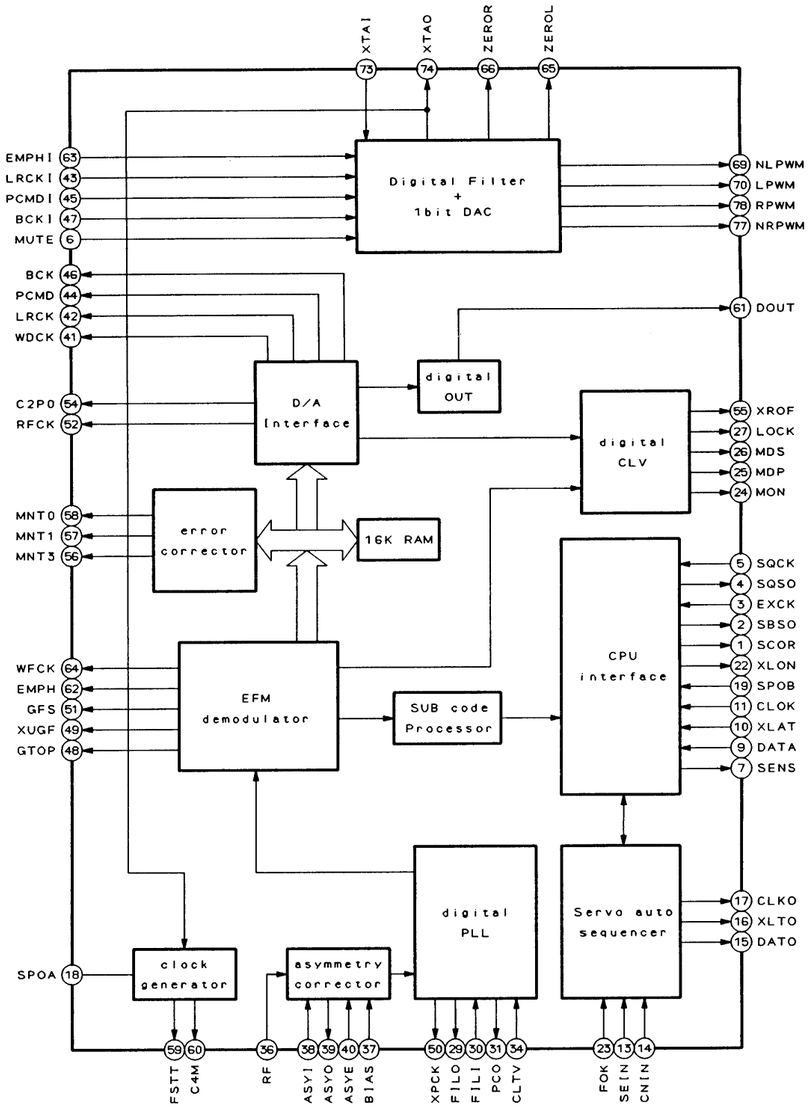
IC50 BU2614FS



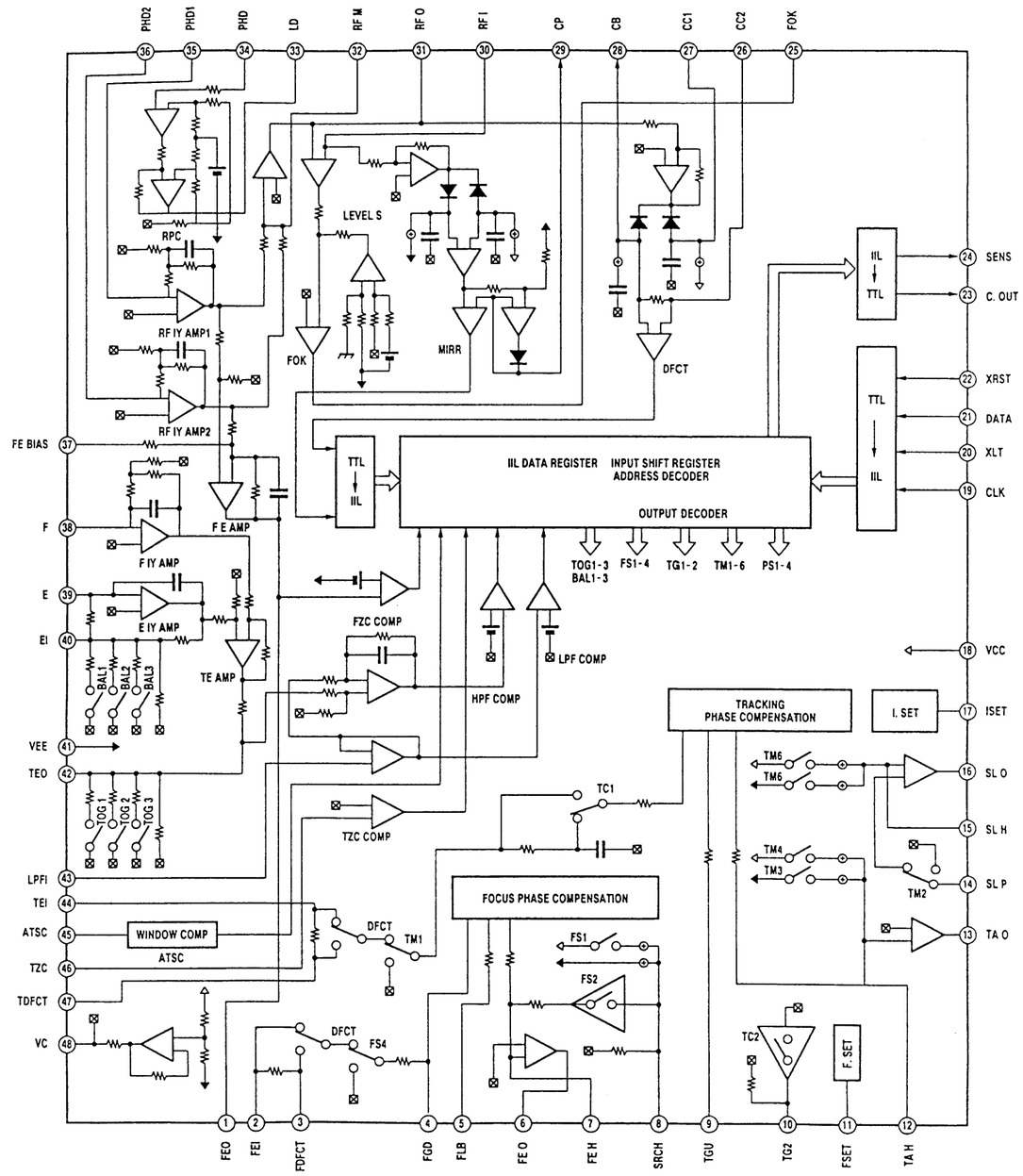
IC301 BA4558BF



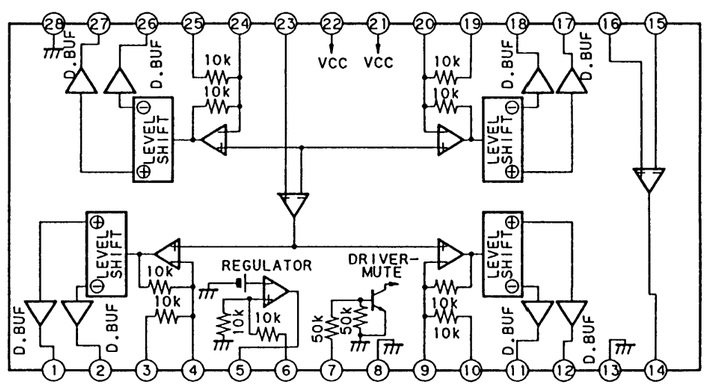
IC502 CXD2508AQ



IC501 CXA1782BQ



IC503 BA6196FP



SECTION 6
EXPLODED VIEWS

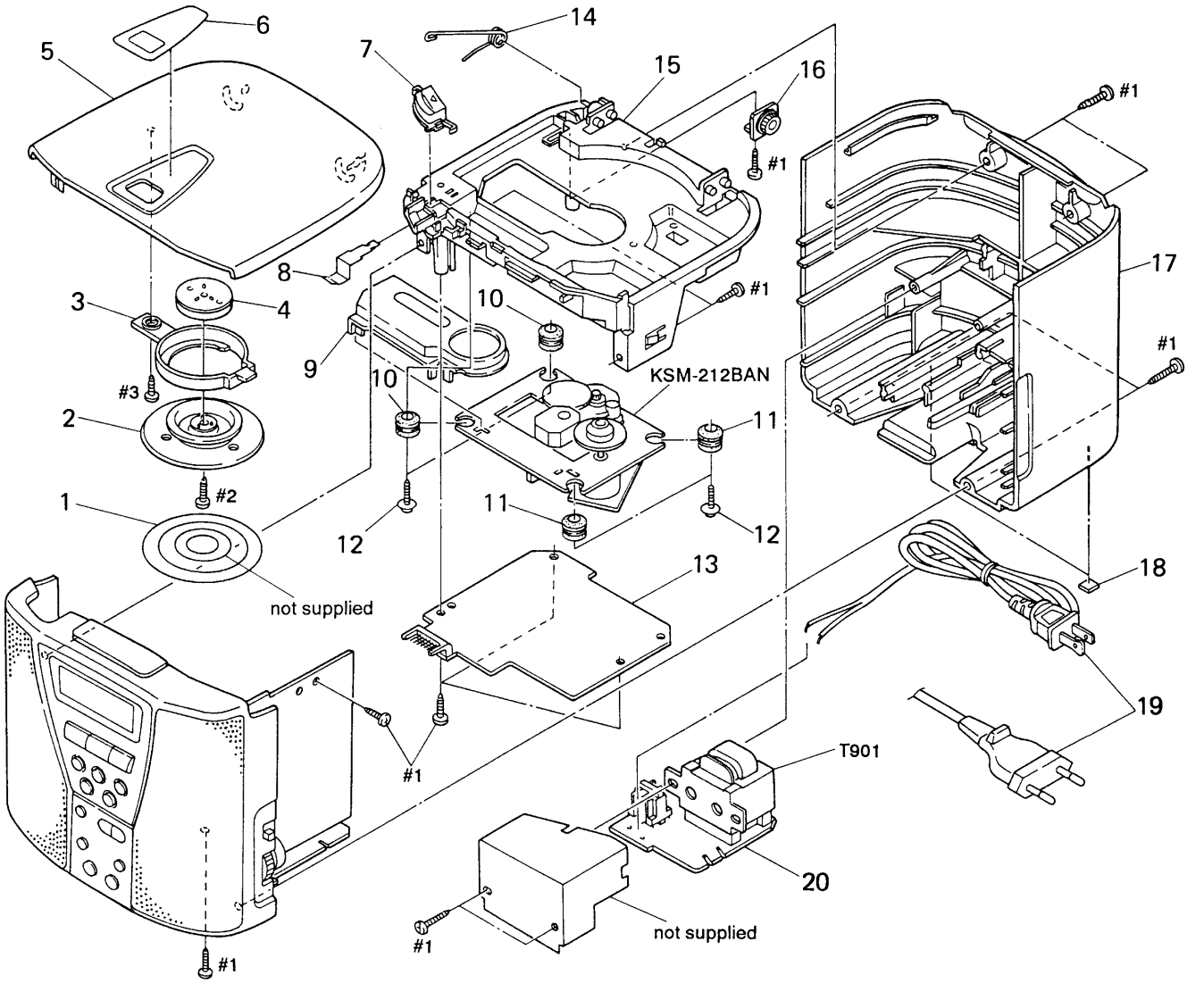
NOTE:

- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts Example:
  KNOB, BALANCE (WHITE) . . . (RED)
  ↑ Parts Color ↑ Cabinet's Color
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are given in the last of the electrical parts list.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

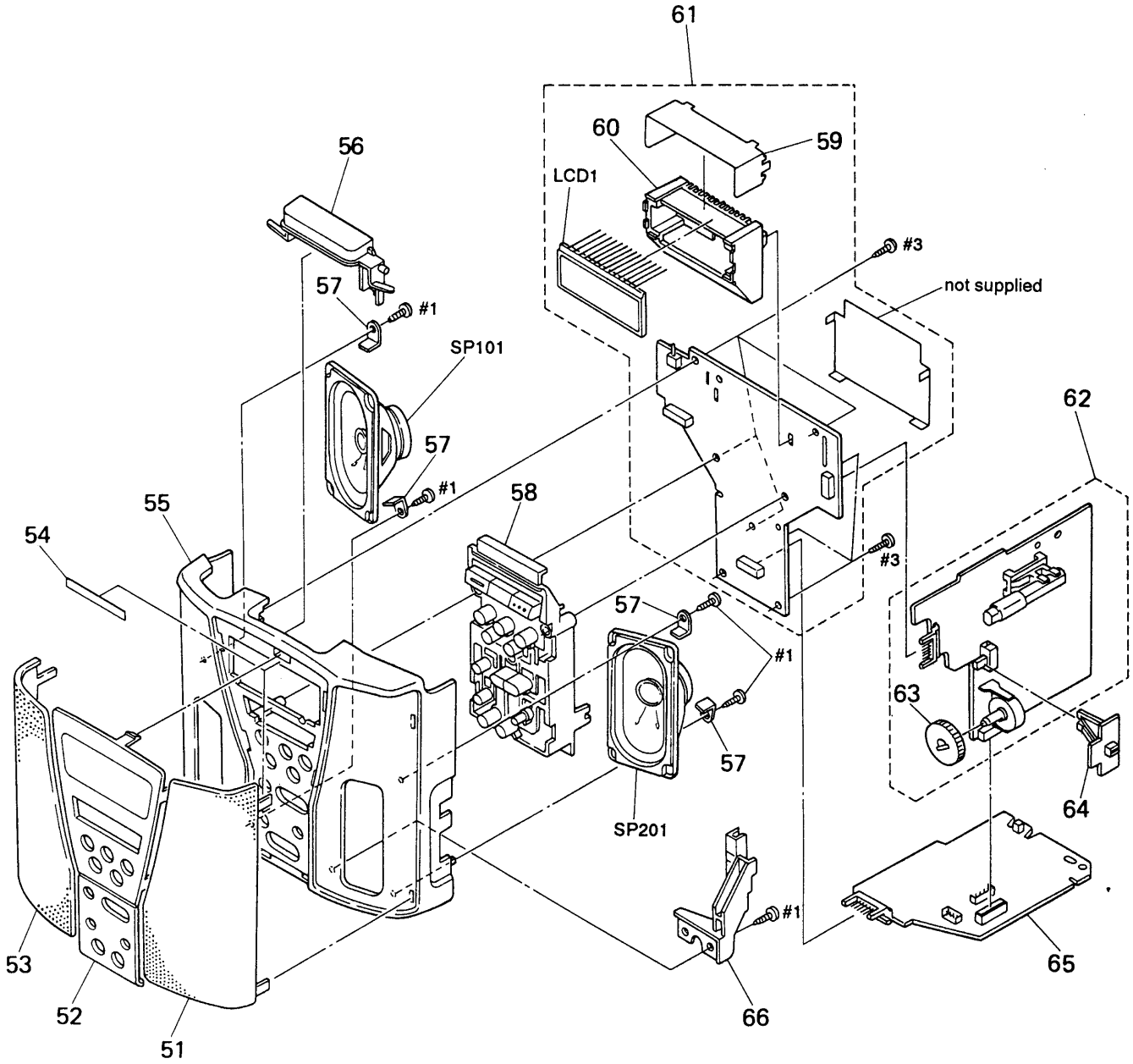
Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le neméro spécifié.

(1) CABINET SECTION



Ref. No.	Part No.	Description	Remark
1	3-910-094-01	CUSHION (CHUCK)	
2	3-910-112-01	PLATE, CHUCKING	
3	3-910-113-01	HOLDER (CHUCK)	
4	1-452-732-11	MAGNET	
5	3-924-474-01	LID (CD)	
6	3-924-481-01	WINDOW (CD)	
7	3-924-479-01	KNOB (OPEN)	
* 8	3-924-487-01	SPRING (OFF SW)	
9	3-910-116-01	COVER, CD	
10	3-910-095-01	RUBBER, VIBRATION PROOF (GREEN)	
11	3-910-095-11	RUBBER, VIBRATION PROOF (RED)	
12	3-910-096-01	SCREW (2.6X10), +PWH TAPPING	
* 13	A-3679-674-A	CD BOARD, COMPLETE	
* 14	3-924-488-01	SPRING (OPEN)	
* 15	3-924-473-01	CABINET (UPPER)	
16	3-351-377-11	DAMPER	
* 17	3-924-472-01	CABINET (REAR)	
18	3-368-852-01	FOOT	
⚠19	1-696-008-31	CORD, POWER (US, Canadian)	
⚠19	1-555-795-00	CORD, POWER (AEP, Italian, Austria)	
* 20	1-656-805-11	POWER BOARD	
⚠T901	1-423-904-11	TRANSFORMER, POWER (US, Canadian)	
⚠T901	1-423-905-11	TRANSFORMER, POWER (AEP, Italian, Austria)	

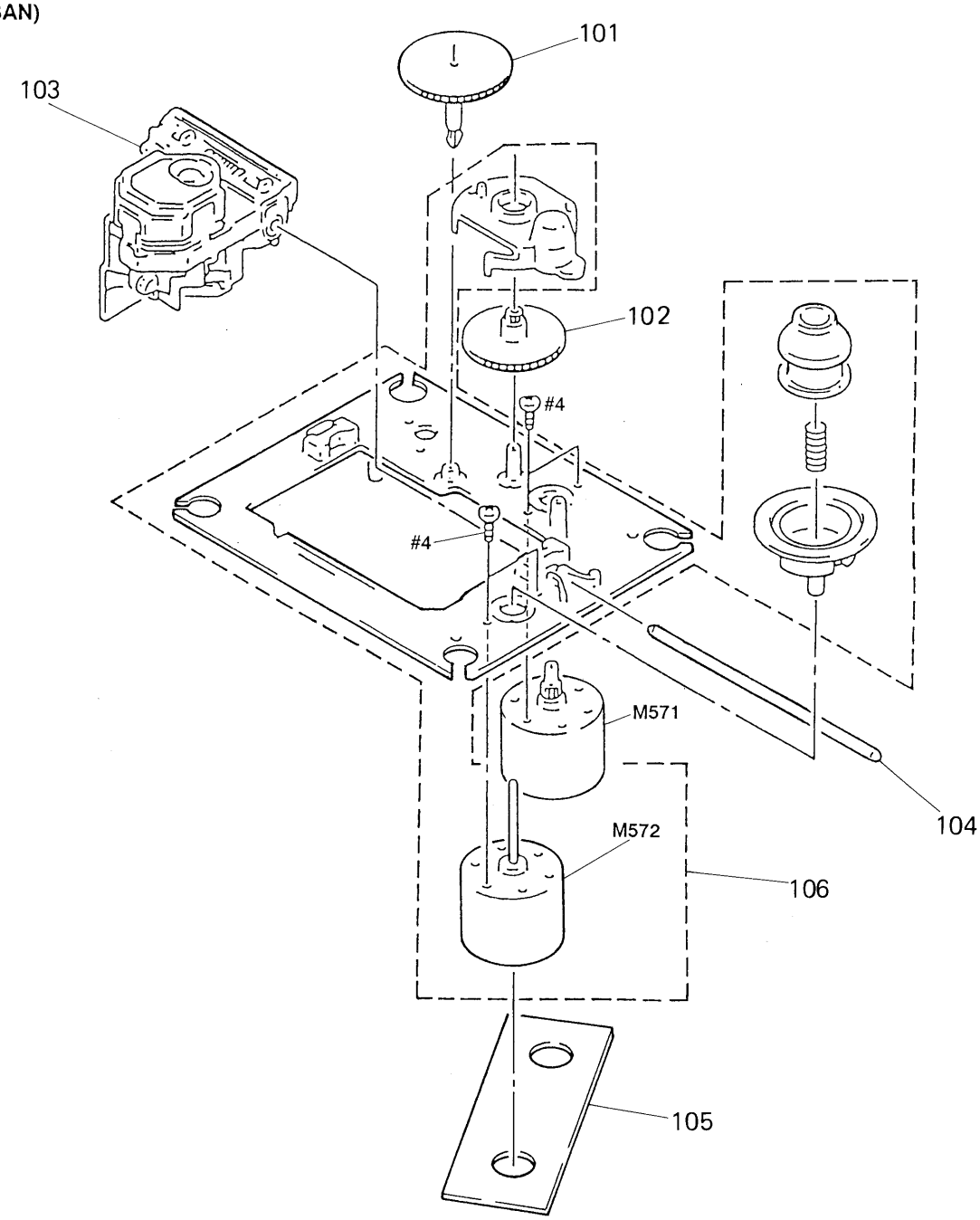
(2) FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark
51	3-924-492-01	NET (R), SP	
52	3-924-476-01	WINDOW (LCD)	
53	3-924-491-01	NET (L), SP	
54	3-918-369-01	SHEET, ADHESIVE	
55	3-924-471-01	CABINET (FRONT) (US, Canadian)	
55	3-924-471-11	CABINET (FRONT) (AEP, Italian, Austria)	
56	3-924-477-01	BUTTON (SNOOZE)	
57	3-593-019-00	CLAW, SPEAKER (US, Canadian)	
57	3-903-217-01	CLAW, SPEAKER (AEP, Italian, Austria)	
58	3-924-475-01	BUTTON	
* 59	3-924-482-01	CASE (LCD), SHIELD	
* 60	3-924-478-01	HOLDER (LCD)	
* 61	A-3662-226-A	KEY BOARD, COMPLETE (US, Canadian)	

Ref. No.	Part No.	Description	Remark
* 61	A-3679-694-A	KEY BOARD, COMPLETE	(AEP, Italian, Austria)
* 62	A-3679-673-A	TUNER BOARD, COMPLETE	
63	3-371-118-21	KNOB (V)	
64	3-924-480-01	KNOB (TONE)	
* 65	A-3662-232-A	AUDIO BOARD, COMPLET (US)	
* 65	A-3662-279-A	AUDIO BOARD, COMPLET	(Canadian, AEP, Italian, Austria)
* 66	3-924-494-01	HOLDER (PCB)	
LCD1	1-810-750-11	DISPLAY PANEL, LIQUID CRYSTAL	
SP101	1-504-822-11	SPEAKER (LEFT)	
SP201	1-504-822-11	SPEAKER (RIGHT)	

(3) OPTICAL PICK-UP SECTION (KSM-212BAN)



Ref. No.	Part No.	Description	Remark
101	2-626-907-01	GEAR (A) (S)	
102	2-627-003-01	GEAR (B) (RP)	
⚠103	8-848-337-11	DEVICE, OPTICAL KSS-212B	
104	2-626-908-01	SHAFT, SLED	
* 105	1-656-803-11	MOTOR BOARD	
106	X-2625-770-1	CHASSIS ASSY (MB) (RP), MOTOR (INCLUDING M572) (SPINDLE)	
M571	X-2625-769-1	GEAR ASSY (MB) (RP), MOTOR (SLED)	

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Note: Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le neméro spécifié.

AUDIO

SECTION 7
ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL:Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F:nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u:μ, for example:
  uA..: μA.. uPA..: μPA..
  uPB..: μPB.. uPC..: μPC.. uPD..: μPD..
- CAPACITORS
  uF: μF
- COILS
  uH: μH

When indicating parts by reference number, please include the board.

The components identified by mark ⚠ or dotted line with mark. ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description			Remark
*	A-3662-232-A	AUDIO BOARD, COMPLETE (US)			
*	A-3662-279-A	AUDIO BOARD, COMPLETE (EXCEPT US)			
		**********			
		< CAPACITOR >			
C150	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C151	1-104-664-11	ELECT	47uF	20%	16V
C152	1-124-443-00	ELECT	100uF	20%	10V
C153	1-124-471-00	ELECT	1000uF	20%	6.3V
C154	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C250	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C251	1-104-664-11	ELECT	47uF	20%	16V
C252	1-124-443-00	ELECT	100uF	20%	10V
C253	1-124-471-00	ELECT	1000uF	20%	6.3V
C254	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C350	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C351	1-104-665-11	ELECT	100uF	20%	16V
C352	1-104-664-11	ELECT	47uF	20%	16V
C354	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C355	1-104-664-11	ELECT	47uF	20%	16V
C356	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C901	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C902	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C903	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C904	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C905	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C907	1-124-120-11	ELECT	220uF	20%	25V
C908	1-104-664-11	ELECT	47uF	20%	16V
C909	1-104-664-11	ELECT	47uF	20%	16V
C910	1-124-903-11	ELECT	1uF	20%	50V
C920	1-126-937-11	ELECT	4700uF	20%	16V
C921	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C922	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C923	1-124-443-00	ELECT	100uF	20%	10V
C924	1-124-443-00	ELECT	100uF	20%	10V
C925	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C926	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C927	1-124-443-00	ELECT	100uF	20%	10V
C928	1-124-443-00	ELECT	100uF	20%	10V
C929	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C930	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C931	1-163-031-11	CERAMIC CHIP	0.01uF		50V
		< CONNECTOR >			
CNJ303	1-770-390-11	PIN, CONNECTOR (PC BOARD) 6P			
* CNP301	1-564-709-11	PIN, CONNECTOR (SMALL TYPE) 7P			
* CNP302	1-766-715-11	CONNECTOR, BOARD TO BOARD 10P			
* CNP305	1-564-706-11	PIN, CONNECTOR (SMALL TYPE) 4P			
* CNP306	1-564-704-11	PIN, CONNECTOR (SMALL TYPE) 2P			
		< DIODE >			
D901	8-719-031-85	DIODE	1N4002L		
D902	8-719-031-85	DIODE	1N4002L		
D903	8-719-031-85	DIODE	1N4002L		
D904	8-719-031-85	DIODE	1N4002L		
D905	8-719-901-33	DIODE	1SS133		
D906	8-719-901-33	DIODE	1SS133		
D907	8-719-901-33	DIODE	1SS133		
D908	8-719-901-33	DIODE	1SS133		
D909	8-719-901-33	DIODE	1SS133		
D910	8-719-901-33	DIODE	1SS133		
D911	8-719-901-33	DIODE	1SS133		
D920	8-719-109-89	DIODE	RD5.6ESB2		
D921	8-719-109-97	DIODE	RD6.8ES-B2		
D922	8-719-109-89	DIODE	RD5.6ESB2		
		< IC >			
IC350	8-759-060-21	IC	LA4598		
		< TRANSISTOR >			
Q920	8-729-021-82	TRANSISTOR	2SD2396K		
Q921	8-729-801-84	TRANSISTOR	2SB1013-4		
Q922	8-729-900-61	TRANSISTOR	DTA114ES		
Q923	8-729-900-80	TRANSISTOR	DTC114ES		
Q924	8-729-021-82	TRANSISTOR	2SD2396K		
Q926	8-729-119-76	TRANSISTOR	2SA1175-HFE		
		< RESISTOR >			
R150	1-216-057-00	METAL CHIP	2.2K	5%	1/10W

Ref. No.	Part No.	Description			Remark
R151	1-216-041-00	METAL CHIP	470	5%	1/10W
R152	1-216-025-00	METAL CHIP	100	5%	1/10W
R153	1-216-298-00	METAL CHIP	2.2	5%	1/10W
R154	1-216-097-00	METAL CHIP	100K	5%	1/10W
R250	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R251	1-216-041-00	METAL CHIP	470	5%	1/10W
R252	1-216-025-00	METAL CHIP	100	5%	1/10W
R253	1-216-298-00	METAL CHIP	2.2	5%	1/10W
R254	1-216-097-00	METAL CHIP	100K	5%	1/10W
R901	1-216-073-00	METAL CHIP	10K	5%	1/10W
R903	1-216-089-00	METAL CHIP	47K	5%	1/10W
R904	1-216-025-00	METAL CHIP	100	5%	1/10W
R905	1-216-025-00	METAL CHIP	100	5%	1/10W
⚠R920	1-219-149-11	FUSIBLE	1	5%	1/4W F (EXCEPT US)
⚠R921	1-219-149-11	FUSIBLE	1	5%	1/4W F (EXCEPT US)
R922	1-216-041-00	METAL CHIP	470	5%	1/10W
R923	1-216-049-00	METAL CHIP	1K	5%	1/10W
R924	1-216-089-00	METAL CHIP	47K	5%	1/10W
R925	1-216-041-00	METAL CHIP	470	5%	1/10W
R926	1-216-041-00	METAL CHIP	470	5%	1/10W
R927	1-216-089-00	METAL CHIP	47K	5%	1/10W
R928	1-216-057-00	METAL CHIP	2.2K	5%	1/10W

****

* A-3679-674-A CD BOARD, COMPLETE

****

< CAPACITOR >

C101	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C102	1-163-109-00	CERAMIC CHIP	47PF	5%	50V
C103	1-163-109-00	CERAMIC CHIP	47PF	5%	50V
C104	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C105	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C201	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C202	1-163-109-00	CERAMIC CHIP	47PF	5%	50V
C203	1-163-109-00	CERAMIC CHIP	47PF	5%	50V
C204	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C205	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C301	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C302	1-104-666-11	ELECT	220uF	20%	10V
C303	1-124-443-00	ELECT	100uF	20%	10V
C501	1-104-664-11	ELECT	47uF	20%	16V
C502	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C503	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C504	1-104-664-11	ELECT	47uF	20%	16V
C505	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C506	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C507	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C508	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C509	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C510	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C511	1-163-109-00	CERAMIC CHIP	47PF	5%	50V
C512	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C513	1-124-443-00	ELECT	100uF	20%	10V
C514	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C515	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C516	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C517	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C518	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C519	1-126-963-11	ELECT	4.7uF	20%	50V
C520	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C521	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C522	1-163-093-00	CERAMIC CHIP	10PF	5%	50V
C523	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C524	1-124-443-00	ELECT	100uF	20%	10V
C525	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C526	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C527	1-126-963-11	ELECT	4.7uF	20%	50V
C528	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C529	1-163-109-00	CERAMIC CHIP	47PF	5%	50V
C530	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C531	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C532	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C533	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C534	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C535	1-163-090-00	CERAMIC CHIP	7PF		50V
C540	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C541	1-165-320-11	CERAMIC CHIP	0.47uF	10%	16V
C542	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C543	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C544	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C545	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C546	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C547	1-124-443-00	ELECT	100uF	20%	10V
C548	1-163-093-00	CERAMIC CHIP	10PF	5%	50V
C549	1-163-109-00	CERAMIC CHIP	47PF	5%	50V
C550	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C551	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C552	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C553	1-124-907-11	ELECT	10uF	20%	50V
C554	1-104-664-11	ELECT	47uF	20%	16V
C555	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C556	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C557	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C558	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C560	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C561	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

CD

Ref. No.	Part No.	Description			Remark
C562	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C563	1-104-666-11	ELECT	220uF	20%	10V
C564	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C572	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C575	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C580	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C581	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C582	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C583	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C584	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C585	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C586	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C587	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C588	1-163-038-00	CERAMIC CHIP	0.1uF		25V
		< CONNECTOR >			
* CNJ504	1-770-392-11	PIN, CONNECTOR (PC BOARD) 8P			
* CNP501	1-564-710-11	PIN, CONNECTOR (SMALL TYPE) 8P			
* CNP502	1-564-710-11	PIN, CONNECTOR (SMALL TYPE) 8P			
* CNP503	1-564-708-11	PIN, CONNECTOR (SMALL TYPE) 6P			
		< DIODE >			
D501	8-719-901-33	DIODE 1SS133			
		< IC >			
IC301	8-759-909-71	IC BA4558F			
IC501	8-752-069-56	IC CXA1782BQ			
IC502	8-752-373-06	IC CXD2508AQ			
IC503	8-759-332-98	IC BA6196FP			
		< CONNECTOR >			
* KH301	1-568-135-21	HOLDER, CABLE 7P			
		< COIL >			
L501	1-414-181-11	INDUCTOR	4.7uH		
L540	1-414-181-11	INDUCTOR	4.7uH		
L541	1-414-183-41	INDUCTOR	10uH		
L544	1-414-183-41	INDUCTOR	10uH		
L551	1-414-183-41	INDUCTOR	10uH		
		< TRANSISTOR >			
Q501	8-729-801-84	TRANSISTOR 2SB1013-4			
		< RESISTOR >			
R101	1-216-073-00	METAL CHIP	10K	5%	1/10W
R102	1-216-073-00	METAL CHIP	10K	5%	1/10W
R103	1-216-089-00	METAL CHIP	47K	5%	1/10W
R104	1-216-089-00	METAL CHIP	47K	5%	1/10W
R105	1-216-081-00	METAL CHIP	22K	5%	1/10W
R106	1-216-081-00	METAL CHIP	22K	5%	1/10W
R107	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R108	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R109	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R110	1-216-081-00	METAL CHIP	22K	5%	1/10W
R201	1-216-073-00	METAL CHIP	10K	5%	1/10W
R202	1-216-073-00	METAL CHIP	10K	5%	1/10W
R203	1-216-089-00	METAL CHIP	47K	5%	1/10W
R204	1-216-089-00	METAL CHIP	47K	5%	1/10W
R205	1-216-081-00	METAL CHIP	22K	5%	1/10W
R206	1-216-081-00	METAL CHIP	22K	5%	1/10W
R207	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R208	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R209	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R210	1-216-081-00	METAL CHIP	22K	5%	1/10W
R301	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R302	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R305	1-216-081-00	METAL CHIP	22K	5%	1/10W
R501	1-216-025-00	METAL CHIP	100	5%	1/10W
R502	1-216-049-00	METAL CHIP	1K	5%	1/10W
R503	1-216-009-00	METAL CHIP	22	5%	1/10W
R504	1-216-081-00	METAL CHIP	22K	5%	1/10W
R505	1-216-081-00	METAL CHIP	22K	5%	1/10W
R506	1-216-113-00	METAL CHIP	470K	5%	1/10W
R507	1-216-105-91	METAL GLAZE	220K	5%	1/10W
R508	1-216-105-91	METAL GLAZE	220K	5%	1/10W
R509	1-216-097-00	METAL CHIP	100K	5%	1/10W
R510	1-216-113-00	METAL CHIP	470K	5%	1/10W
R511	1-216-109-00	METAL CHIP	330K	5%	1/10W
R512	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R513	1-216-073-00	METAL CHIP	10K	5%	1/10W
R514	1-216-073-00	METAL CHIP	10K	5%	1/10W
R515	1-216-113-00	METAL CHIP	470K	5%	1/10W
R516	1-216-097-00	METAL CHIP	100K	5%	1/10W
R517	1-216-113-00	METAL CHIP	470K	5%	1/10W
R518	1-216-097-00	METAL CHIP	100K	5%	1/10W
R519	1-216-097-00	METAL CHIP	100K	5%	1/10W
R520	1-216-089-00	METAL CHIP	47K	5%	1/10W
R521	1-216-073-00	METAL CHIP	10K	5%	1/10W
R522	1-216-097-00	METAL CHIP	100K	5%	1/10W
R523	1-216-105-91	METAL GLAZE	220K	5%	1/10W
R524	1-216-073-00	METAL CHIP	10K	5%	1/10W
R525	1-216-081-00	METAL CHIP	22K	5%	1/10W
R526	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R528	1-216-113-00	METAL CHIP	470K	5%	1/10W
R529	1-216-113-00	METAL CHIP	470K	5%	1/10W
R530	1-216-049-00	METAL CHIP	1K	5%	1/10W

CD KEY

Ref. No.	Part No.	Description			Remark
R540	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R541	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R542	1-216-049-00	METAL CHIP	1K	5%	1/10W
R543	1-216-073-00	METAL CHIP	10K	5%	1/10W
R544	1-216-121-00	METAL CHIP	1M	5%	1/10W
R545	1-216-073-00	METAL CHIP	10K	5%	1/10W
R546	1-216-105-91	METAL GLAZE	220K	5%	1/10W
R547	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R548	1-216-097-00	METAL CHIP	100K	5%	1/10W
R549	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R553	1-216-073-00	METAL CHIP	10K	5%	1/10W
R560	1-216-073-00	METAL CHIP	10K	5%	1/10W
R561	1-216-081-00	METAL CHIP	22K	5%	1/10W
R562	1-216-081-00	METAL CHIP	22K	5%	1/10W
R563	1-216-089-00	METAL CHIP	47K	5%	1/10W
R564	1-216-097-00	METAL CHIP	100K	5%	1/10W
R565	1-216-073-00	METAL CHIP	10K	5%	1/10W
R566	1-216-113-00	METAL CHIP	470K	5%	1/10W
R567	1-216-097-00	METAL CHIP	100K	5%	1/10W
R580	1-216-049-00	METAL CHIP	1K	5%	1/10W
R581	1-216-049-00	METAL CHIP	1K	5%	1/10W
R582	1-216-049-00	METAL CHIP	1K	5%	1/10W
R583	1-216-049-00	METAL CHIP	1K	5%	1/10W
R584	1-216-049-00	METAL CHIP	1K	5%	1/10W
R585	1-216-049-00	METAL CHIP	1K	5%	1/10W
R586	1-216-049-00	METAL CHIP	1K	5%	1/10W
R587	1-216-073-00	METAL CHIP	10K	5%	1/10W

< VARIABLE RESISTOR >

RV501	1-230-497-11	RES, ADJ, CARBON	22K		
RV502	1-230-497-11	RES, ADJ, CARBON	22K		

< VIBRATOR >

X501	1-579-345-11	VIBRATOR, CERAMIC (16.9344MHz)			

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*	A-3662-226-A	KEY BOARD, COMPLETE (US, Canadian)			
*	A-3679-694-A	KEY BOARD, COMPLETE (EXCEPT US, Canadian)			

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< CAPACITOR >

C402	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C403	1-124-443-00	ELECT	100uF	20%	10V
C405	1-126-941-11	ELECT	470uF	20%	6.3V
C406	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C407	1-124-471-00	ELECT	1000uF	20%	6.3V
C408	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C409	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C410	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C411	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C412	1-162-638-11	CERAMIC CHIP	1uF		16V
C422	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C423	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C424	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C425	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C426	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C427	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C428	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C429	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C430	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C431	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C432	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C433	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C434	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V
C435	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C436	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V
C437	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V
C438	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C439	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C440	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C441	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C443	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C445	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C446	1-163-038-00	CERAMIC CHIP	0.1uF		25V

< CONNECTOR >

CNP303	1-770-399-11	HOUSING, CONNECTOR(PC BOARD) 6P
CNP304	1-770-398-11	HOUSING, CONNECTOR(PC BOARD) 5P
CNP504	1-770-401-11	HOUSING, CONNECTOR(PC BOARD) 8P

< DIODE >

D401	8-719-042-10	LED	SLZ-235C-15-T1
D402	8-719-042-10	LED	SLZ-235C-15-T1
D403	8-719-042-10	LED	SLZ-235C-15-T1
D404	8-719-901-33	DIODE	1SS133
D405	8-719-901-33	DIODE	1SS133
D406	8-719-901-33	DIODE	1SS133
D407	8-719-901-33	DIODE	1SS133

< IC >

IC401	8-759-348-46	IC	uPD75306BGF-035-3B9
IC402	8-759-165-89	IC	PST600L-T

< COIL >

L401	1-414-183-41	INDUCTOR	10uH

KEY MOTOR

Ref. No.	Part No.	Description			Remark
		< LIQUID CRYSTAL DISPLAY >			
LCD1	1-810-750-11	DISPLAY PANEL, LIQUID CRYSTAL			
		< RESISTOR >			
R401	1-216-033-00	METAL CHIP	220	5%	1/10W
R402	1-216-033-00	METAL CHIP	220	5%	1/10W
R403	1-216-033-00	METAL CHIP	220	5%	1/10W
R405	1-216-089-00	METAL CHIP	47K	5%	1/10W
R406	1-216-073-00	METAL CHIP	10K	5%	1/10W
R407	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R408	1-216-041-00	METAL CHIP	470	5%	1/10W
R409	1-216-097-00	METAL CHIP	100K	5%	1/10W
R410	1-216-097-00	METAL CHIP	100K	5%	1/10W
R411	1-216-097-00	METAL CHIP	100K	5%	1/10W
R412	1-216-097-00	METAL CHIP	100K	5%	1/10W
R413	1-216-097-00	METAL CHIP	100K	5%	1/10W
R414	1-216-097-00	METAL CHIP	100K	5%	1/10W
R415	1-216-097-00	METAL CHIP	100K	5%	1/10W
R416	1-216-097-00	METAL CHIP	100K	5%	1/10W
R417	1-216-097-00	METAL CHIP	100K	5%	1/10W
R418	1-216-073-00	METAL CHIP	10K	5%	1/10W
R423	1-216-041-00	METAL CHIP	470	5%	1/10W
R424	1-216-041-00	METAL CHIP	470	5%	1/10W
R425	1-216-049-00	METAL CHIP	1K	5%	1/10W
R426	1-216-049-00	METAL CHIP	1K	5%	1/10W
R427	1-216-049-00	METAL CHIP	1K	5%	1/10W
R428	1-216-041-00	METAL CHIP	470	5%	1/10W
R430	1-216-097-00	METAL CHIP	100K	5%	1/10W
R431	1-216-049-00	METAL CHIP	1K	5%	1/10W
R432	1-216-049-00	METAL CHIP	1K	5%	1/10W
R433	1-216-049-00	METAL CHIP	1K	5%	1/10W
R434	1-216-073-00	METAL CHIP	10K	5%	1/10W
R435	1-216-049-00	METAL CHIP	1K	5%	1/10W
R436	1-216-073-00	METAL CHIP	10K	5%	1/10W
R437	1-216-073-00	METAL CHIP	10K	5%	1/10W
R438	1-216-049-00	METAL CHIP	1K	5%	1/10W
R439	1-216-049-00	METAL CHIP	1K	5%	1/10W
R440	1-216-049-00	METAL CHIP	1K	5%	1/10W
R441	1-216-049-00	METAL CHIP	1K	5%	1/10W
R442	1-216-049-00	METAL CHIP	1K	5%	1/10W
R443	1-216-049-00	METAL CHIP	1K	5%	1/10W
R444	1-216-049-00	METAL CHIP	1K	5%	1/10W
R445	1-216-049-00	METAL CHIP	1K	5%	1/10W
R446	1-216-049-00	METAL CHIP	1K	5%	1/10W
R447	1-216-049-00	METAL CHIP	1K	5%	1/10W
R448	1-216-049-00	METAL CHIP	1K	5%	1/10W
R449	1-216-049-00	METAL CHIP	1K	5%	1/10W
R450	1-216-049-00	METAL CHIP	1K	5%	1/10W
R451	1-216-049-00	METAL CHIP	1K	5%	1/10W
R452	1-216-049-00	METAL CHIP	1K	5%	1/10W
R453	1-216-049-00	METAL CHIP	1K	5%	1/10W
R454	1-216-049-00	METAL CHIP	1K	5%	1/10W
R455	1-216-049-00	METAL CHIP	1K	5%	1/10W
R456	1-216-049-00	METAL CHIP	1K	5%	1/10W
R457	1-216-049-00	METAL CHIP	1K	5%	1/10W
R458	1-216-049-00	METAL CHIP	1K	5%	1/10W
R459	1-216-049-00	METAL CHIP	1K	5%	1/10W
R460	1-216-049-00	METAL CHIP	1K	5%	1/10W
R461	1-216-049-00	METAL CHIP	1K	5%	1/10W
R462	1-216-049-00	METAL CHIP	1K	5%	1/10W
R463	1-216-105-00	METAL CHIP	220K	5%	1/10W
R472	1-216-041-00	METAL CHIP	470	5%	1/10W (EXCEPT US, Canadian)
		< SWITCH >			
S401	1-554-937-11	SWITCH, KEY BOARD (OFF/ALARM RESET)			
S402	1-554-937-11	SWITCH, KEY BOARD (RADIO/SLEEP)			
S403	1-554-937-11	SWITCH, KEY BOARD (CD ⏯)			
S404	1-554-937-11	SWITCH, KEY BOARD (MEMORY PRESETS 3)			
S405	1-554-937-11	SWITCH, KEY BOARD (MEMORY PRESETS 2)			
S406	1-554-937-11	SWITCH, KEY BOARD (MEMORY PRESETS 1)			
S407	1-554-937-11	SWITCH, KEY BOARD (MEMORY PRESETS 5)			
S408	1-554-937-11	SWITCH, KEY BOARD (MEMORY PRESETS 4)			
S409	1-554-937-11	SWITCH, KEY BOARD (TUNING +/TIME SET +/ ⏮)			
S410	1-554-937-11	SWITCH, KEY BOARD (TUNING -/TIME SET -/ ⏭)			
S411	1-554-937-11	SWITCH, KEY BOARD (BAND WAKE UP TRACK)			
S412	1-554-937-11	SWITCH, KEY BOARD (TRACK ENTER/CLOCK)			
S413	1-554-937-11	SWITCH, KEY BOARD (ALARM B)			
S414	1-554-937-11	SWITCH, KEY BOARD (ALARM A)			
S415	1-554-937-11	SWITCH, KEY BOARD (ALARM MODE)			
S416	1-554-937-11	SWITCH, KEY BOARD (SNOOZE/SLEEP OFF)			
S420	1-692-080-11	SWITCH, PUSH (1 KEY) (PULL OPEN)			
		< VIBRATOR >			
X401	1-577-101-11	VIBRATOR, CERAMIC (4.19MHz)			
X402	1-567-098-41	VIBRATOR, CRYSTAL (32kHz)			
**********					
*	1-656-803-11	MOTOR BOARD			
		**********			
		< SWITCH >			
S501	1-571-936-11	SWITCH, LEAF (LIMIT)			
**********					

Ref. No.	Part No.	Description			Remark
*	1-656-805-11	POWER BOARD			
		**********			
		< CONNECTOR >			
* KH306	1-573-287-11	HOLDER, CABLE 2P			
		< LINE FILTER >			
L901	1-424-150-11	TRANSFORMER, LINE FILTER			
		< TRANSFORMER >			
T901	1-423-904-11	TRANSFORMER, POWER (US, Canadian)			
T901	1-423-905-11	TRANSFORMER, POWER (EXCEPT US, Canadian)			
		< TERMINAL >			
* TM1	1-535-771-11	TERMINAL (EXCEPT US, Canadian)			
* TM2	1-535-771-11	TERMINAL (EXCEPT US, Canadian)			
**********					
*	A-3679-673-A	TUNER BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C1	1-163-113-00	CERAMIC CHIP	68PF	5%	50V
C2	1-163-105-00	CERAMIC CHIP	33PF	5%	50V
C3	1-163-109-00	CERAMIC CHIP	47PF	5%	50V
C4	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C6	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C7	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C8	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C9	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C10	1-163-095-00	CERAMIC CHIP	12PF	5%	50V
C11	1-163-089-00	CERAMIC CHIP	6PF		50V
C14	1-163-129-00	CERAMIC CHIP	330PF	5%	50V
C15	1-163-113-00	CERAMIC CHIP	68PF	5%	50V
C16	1-163-088-00	CERAMIC CHIP	5PF		50V
C17	1-104-664-11	ELECT	47uF	20%	16V
C18	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C19	1-124-925-11	ELECT	2.2uF	20%	100V
C20	1-124-443-00	ELECT	100uF	20%	10V
C21	1-124-902-00	ELECT	0.47uF	20%	50V
C22	1-126-963-11	ELECT	4.7uF	20%	50V
C23	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C24	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C25	1-126-963-11	ELECT	4.7uF	20%	50V
C26	1-124-903-11	ELECT	1uF	20%	50V
C27	1-104-664-11	ELECT	47uF	20%	16V
C28	1-104-664-11	ELECT	47uF	20%	16V
C29	1-124-903-11	ELECT	1uF	20%	50V

Ref. No.	Part No.	Description			Remark
C30	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C32	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C33	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C34	1-136-153-00	FILM	0.01uF	5%	50V
C50	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C51	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C52	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C53	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C54	1-124-907-11	ELECT	10uF	20%	50V
C55	1-126-963-11	ELECT	4.7uF	20%	50V
C56	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C57	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C58	1-163-097-00	CERAMIC CHIP	15PF	5%	50V
C60	1-136-171-00	FILM	0.33uF	5%	50V
C61	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C62	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C63	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C64	1-124-120-11	ELECT	220uF	20%	25V
C66	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C120	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C121	1-126-963-11	ELECT	4.7uF	20%	50V
C122	1-126-963-11	ELECT	4.7uF	20%	50V
C123	1-163-093-00	CERAMIC CHIP	10PF	5%	50V
C155	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C156	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C220	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C221	1-126-963-11	ELECT	4.7uF	20%	50V
C222	1-126-963-11	ELECT	4.7uF	20%	50V
C223	1-163-093-00	CERAMIC CHIP	10PF	5%	50V
C255	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C256	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C320	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C321	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C322	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C323	1-126-963-11	ELECT	4.7uF	20%	50V
C324	1-126-963-11	ELECT	4.7uF	20%	50V
C325	1-124-907-11	ELECT	10uF	20%	50V
C326	1-126-941-11	ELECT	470uF	20%	6.3V
C327	1-124-120-11	ELECT	220uF	20%	25V
C328	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C329	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C330	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C331	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C332	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C333	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C334	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C335	1-124-907-11	ELECT	10uF	20%	50V

TUNER

Ref. No.	Part No.	Description	Remark
		< FILTER >	
CF1	1-577-072-21	FILTER, CERAMIC	
CF2	1-760-238-11	FILTER, CERAMIC	
CF3	1-760-238-11	FILTER, CERAMIC	
		< CONNECTOR >	
CNJ302	1-766-719-11	CONNECTOR, BOARD TO BOARD 10P	
CNJ304	1-770-389-11	PIN, CONNECTOR (PC BOARD) 5P	
		< TRIMMER >	
CT1	1-141-304-21	CAP, TRIMMER 10PF	
CT3	1-141-304-21	CAP, TRIMMER 10PF	
		< DIODE >	
D1	8-713-100-11	DIODE 1T362	
D2	8-713-100-11	DIODE 1T362	
D3	8-719-980-71	DIODE SVC342L-V	
D320	8-719-901-33	DIODE 1SS133	
D321	8-719-901-33	DIODE 1SS133	
		< IC >	
IC1	8-752-050-20	IC CXA1238S	
IC50	8-759-188-85	IC BU2614FS	
IC320	8-759-932-33	IC BU4066BC	
IC321	8-759-075-55	IC BA10324AF-T1	
		< COIL >	
L2	1-406-545-11	COIL, AIR-CORE (FM RF)	
L4	1-402-616-11	ANTENNA, FERRITE-ROD (MW)	
L5	1-406-485-11	COOL (MW OSC)	
L6	1-414-189-31	INDUCTOR 100uH	
		< TRANSISTOR >	
Q1	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q50	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q51	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q101	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q201	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q320	8-729-900-80	TRANSISTOR DTC114ES	
Q321	8-729-900-61	TRANSISTOR DTA114ES	
Q322	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q323	8-729-119-78	TRANSISTOR 2SC2785-HFE	
		< RESISTOR >	
R1	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R2	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R3	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R4	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R5	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R8	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R9	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R10	1-216-121-00	METAL CHIP 1M 5% 1/10W	
R11	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R12	1-216-105-91	METAL GLAZE 220K 5% 1/10W	
R13	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R14	1-216-105-91	METAL GLAZE 220K 5% 1/10W	
R15	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R16	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R17	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R50	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R51	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R52	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R53	1-216-041-00	METAL CHIP 470 5% 1/10W	
R54	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R56	1-216-085-00	METAL CHIP 33K 5% 1/10W	
R57	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R60	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R61	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R62	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R63	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R120	1-216-069-00	METAL CHIP 6.8K 5% 1/10W	
R121	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R122	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R123	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R124	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R125	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R126	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R127	1-216-105-91	METAL GLAZE 220K 5% 1/10W	
R128	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R129	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R130	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R220	1-216-069-00	METAL CHIP 6.8K 5% 1/10W	
R221	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R222	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R223	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R224	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R225	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R226	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R227	1-216-105-91	METAL GLAZE 220K 5% 1/10W	
R228	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R229	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R230	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R320	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R321	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R322	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R323	1-216-025-00	METAL CHIP 100 5% 1/10W	
R324	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R325	1-216-089-00	METAL CHIP 47K 5% 1/10W	

Ref. No.	Part No.	Description			Remark
R326	1-216-073-00	METAL CHIP	10K	5%	1/10W
R327	1-216-113-00	METAL CHIP	470K	5%	1/10W
R328	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R329	1-216-105-91	METAL GLAZE	220K	5%	1/10W
R330	1-216-097-00	METAL CHIP	100K	5%	1/10W
R331	1-216-089-00	METAL CHIP	47K	5%	1/10W
R332	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R333	1-216-093-00	METAL CHIP	68K	5%	1/10W
R334	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R335	1-216-097-00	METAL CHIP	100K	5%	1/10W
R336	1-216-049-00	METAL CHIP	1K	5%	1/10W
R337	1-216-049-00	METAL CHIP	1K	5%	1/10W
R338	1-216-073-00	METAL CHIP	10K	5%	1/10W
R339	1-216-073-00	METAL CHIP	10K	5%	1/10W
		< VARIABLE RESISTOR >			
RV1	1-238-601-11	RES, ADJ, CARBON 22K			
RV301	1-223-871-11	RES, VAR, CARBON 20K/20K (VOL ◣)			
		< SWITCH >			
S301	1-692-181-21	SWITCH, SLIDE (MEGA BASS)			
		< TRANSFORMER >			
T1	1-404-790-11	TRANSFORMER, IF			
		< VIBRATOR >			
X50	1-567-769-11	VIBRATOR, CRYSTAL (75kHz)			

****

MISCELLANEOUS

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4	1-452-732-11	MAGNET
⚠19	1-555-795-00	CORD, POWER (AEP, Italian, Austria)
⚠19	1-696-008-31	CORD, POWER (US, Canadian)
⚠103	8-848-337-11	DEVICE, OPTICAL KSS-212B
106	X-2625-770-1	CHASSIS ASSY (MB) (RP), MOTOR (INCLUDING M572) (SPINDLE)
M571	X-2625-769-1	GEAR ASSY (MB) (RP), MOTOR (SLED)
SP101	1-504-822-11	SPEAKER (LEFT)
SP201	1-504-822-11	SPEAKER (RIGHT)

****

Ref. No.	Part No.	Description	Remark

ACCESSORIES & PACKING MATERIALS

****

	1-501-499-11	COUPLER, ANTENNA (Austria)
*	3-704-286-01	BAG (STANDARD), PROTECTION (US, Canadian, Austria)
	3-798-668-11	MANUAL, INSTRUCTION (ENGLISH, FRENCH, GERMAN, DUTCH) (Canadian, Austria)
	3-798-668-21	MANUAL, INSTRUCTION (ENGLISH) (US)
	3-798-668-31	MANUAL, INSTRUCTION (SPANISH, SWEDISH, ITALIAN, PORTUGUESE) (AEP, Italian, Austria)
*	3-924-707-01	INDIVIDUAL CARTON (US, Canadian)
*	3-926-877-01	INDIVIDUAL CARTON (FLEXO) (AEP, Italian, Austria)
*	4-941-548-01	LABEL, CLASS (1) (AEP, Italian, Austria)

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HARDWARE LIST

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#1	7-685-649-79	SCREW +P 3X14 TYPE2 NON-SLIT
#2	7-685-133-19	SCREW +BTP 2.6X6 TYPE2 N-S
#3	7-685-134-19	SCREW +P 2.6X8 TYPE2 NON-SLIT
#4	7-621-255-15	SCREW +P 2X3

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

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